

“There is no lake here, the lake is down there!”

***An inquiry on the transformation of environment
and culture in Burdur Region.***

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Department of Human Geography

Faculty of Sciences

Lund University

Author: Ayse Gul Boydas

Supervisor: Anders Burman

Term: Spring 2012

Department: Human Geography

Address: Carl Bernlundsgata 218, 13 22220 Lund, Sweden.

Telephone: +90 554 337 64 80

Supervisor: Anders Burman

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Author: Ayse Gul Boydas

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Abstract: Burdur Lake, which is located in southwest of Turkey in Lake Region, and has been drying rapidly in the last 30 years. Disappearance of the water from the lake brings dramatic changes to the region on both socio-economic and cultural levels. This paper explores the processes that brought Burdur Lake and its locals to the point where the lake is today. Transformations in cultural habits and everyday life will be examined in parallel to state regulations, acts and their results.

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2. List of Maps

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3. Introduction

“Why do you plant a tree? So that your beloved ones, children, family and friends could eat from that tree. It will give fruits. It is the water and water is life. If we cannot take care of it well enough, we will lose our bread. We would have to leave our homes. But no, we can not do that.”

Veli from Karakent

We were on the observatory looking at Burdur Lake. There were kingfishers, great crested grebes, coots, sparrows, crested larks, red kites, bee-eaters and many other birds. The lake was lying still under the heat of sun. The spot we were had an extensive view, we could see Burdur city across and mountains surrounding the lake. Huge white rocks were popping out on the shore away from the water, reminding where it used to reach.

Veli is the village headmen (*muhtar*) of Karakent. He is also a local farmer who earns his life from planting fruits and vegetables. He has various trees and gives away his harvest to his friends and relatives. Burdur has a climate that allows to grow various plants such as peach, almond, apples, apricots, quince, tomatoes, wheat, clover, corn, lavender, rose and many other local plants. Unfortunately, today the lake shares a similar destiny with many wetlands and lakes of the world; it is rapidly drying.

The search for an answer to the question of how Burdur Lake came to shrink so fast in the last 30 years brought me to the lake. While conducting my fieldwork, and preparing this paper I hoped this research would somehow contribute to the conservation of Burdur Lake. In my discussions and travels I realized that many people are hopeless in terms of government actions for protecting Burdur's biodiversity and avoiding destructive projects.

My travels in Anatolia took me to many places where various cultures and habits are practiced. The richness and the diversity can be recognized from one town to the other. Geographical differences are vastly changeable but not valued enough and in many cases, sacrificed for profit oriented investments. Today in Turkey, several ministries plan building more than 3 thousand hydroelectric centrals and almost 40 thousand mining permission are given since 2005. For some these projects are beneficial for Turkey's neoliberal economic development but once they are built, they inevitably harm ecosystems. This is lead by privatization of water, seeds and land where inhabitants do not get strong opportunities to take part in the process or say 'no' to it. Burdur Lake is shaped by the environment and peoples that have existed and exist around it. As many stories from all around the world, this

lake faces many threats. There are reasons and consequences. That being said, this story, engaging with both environmental and social contexts, will be about the gradual loss of life in Burdur due to disappearance of Burdur Lake.

In ancient Greek there are two words to express life: *zoe*, which expressed the simple fact of living common to all living beings and *bios*, which indicated the form of way of living proper to an individual or a group (Agamben 1995:4). Life in this case inhabits both meanings whereby my journey takes me to encounter biological facts and social changes of a place.

Part One: Time and Place

Mehmet Bedel, whom I met in Burdur, tells me how he makes a *ney* – a reed flute:

“I go out and reach the lake, walk around the reeds. You need to find special ones, the strong ones to make a *ney*. This wetland around the lake brings out the reeds. If the wetland did not exist, we wouldn’t have this music here. I wouldn’t be making my instruments for the livelihood of the music of *Teke* Region. Now the lake is drying, and when the reeds are gone with it, I will not be able to make anymore instruments here.”

Teke Region includes Burdur Region, but rather than a formal name it has more of a cultural value. Teke, meaning *male goat* in Turkish, is the symbol of the area because it has been central to *yörük* culture and practices for generations. “Today, this culture is slowly fading away” Mehmet adds. “Everything was based on the lifestyles of seasonal migration and breeding goats and camels. Carpets, pillow cases, bags, covers, tents... everything people used was the outcome of this. I try to collect them so that they keep on living in our traditions. Sometimes I come up with handmade string instruments or flutes.”

Then he showed me instruments that he collected from his elders in Aziziye Village. Mehmet Bedel is a craftsman who makes various traditional flutes and string instruments professionally at his studio in the city. He also is

a master at playing them. The genre of music he makes is known to be a crucial part of everyday practices of *yörüks*. In my search of the meaning of the word *yörük*, asking people how the word for these families came out, one person said it sounds like “*yürürük*” which means “we walk” in another Aegean accent. *Yörüks* in general are semi-nomadic (or nowadays more settled) groups of people spread in mostly middle and south of Anatolia. They have been around Burdur for several hundreds of years and today some of the families still pursue the custom of seasonal migration to the Taurus mountains with their camels and goats in summer. Since they breed animals, and have a very strong shepherd tradition, music is vital for the continuity of life, fertility and traditions of *yörük*.

A festival in Tefenni is a wonderful example that reveals how customs are celebrated in the regions.¹ On September 5th and 6th, in the coming-of-autumn, people gather with music, food and contests. The contests are held among shepherds where they cross from a river and wait for the herd to follow. The one whose goats can pass this river quickest is the winner. Before the contest, the goats are colored in red and a strong one (*teke*) is chosen to be the leader. It is a carnival of expressions as many other events and artefacts *yörüks* have that celebrates nature, water and other living beings.

However, today, the rivers around Burdur Lake are mostly dry. Even though it has been common for them to be dry in summer, they do not have enough water to flow. Mehmet told me how worrying this is for him and played songs to express his feelings with his flutes and *cura* -a small string instrument made of mulberry or almond trees. With disappearance of water, people in Teke region witness the loss of cultural elements which are the fundamentals of local knowledge of the area. In Anatolia and many other places in the world, crafts like Mehmet Bedel’s are gradually lost, so do habitats. What is referred as ‘gone’ in terms of culture is part of the gradual loss biodiversity. In their website Terralingua, explains why they focus on the connections among languages, cultures, nature and diversity so that they try to explore terralinua which is :

¹ <http://www.tefenni.gov.tr/tefenni/hyunum.html>

1. languages of the Earth, the many voices of the world's diverse peoples.

2. language of the Earth, the voice of Mother Nature.²

This relationship with mother nature is interrupted in many places in the world, but their preservation for next generations is possible, only through the reproduction of values and practices. This does not specifically refer to holding on the ideals of past, and not to follow technological advancements, but to follow sustainable lifestyles that support local economies –not international corporations. My discussions with Mehmet Bedel pointed out to that this relationship which is transported from one generation to the other- is possible with kinship and apprenticeship. Thus, one of the main reasons for these crafts, and therefore their attachment to nature to be broken is the absence of people in local places or the loss of economic value that local artefacts have.

All instruments, in Mehmet's workshop in Burdur, are crafted out of careful choice and his local knowlegde. All the material he uses is fed by the waters from the springs and underground waters. Sillitoe suggests that indigenous knowledge "is a body of knowledge existing within or acquired by local people over a period of time through accumulation of experiences, society-nature relationships, community practices and institutions, and by passing through generations." (Sillitoe: 2000,4). I choose to use the term 'local' in this research since it applies to the description of cultural expressions more than . Mehmet Bedel was worried because the disappearance of water means the loss of his craft along with the nature and his local culture. Growing up with *yörük* culture, he has the deep knowledge of his craft, and plays traditional *yörük* songs and records it for future generations. But he also says he has no apprentices today, he is worried for the continuation of the knowledge and culture to other generations. He is concerned that the local culture here in Burdur, what people appreciated before might be lost now

² <http://www.terralingua.org/>

altogether with the knowledge of practices based on rural culture and relation to animals and nature. I have listened to his music, which I cannot explain by words on any paper. I could only admire the existence of such sentimental voice of a flute following the steps of goats throughout time. I felt the melancholy in his songs, understanding better what was going on where I was at that moment. Before, I wanted to just to be a plain observer, but from then on, I could not be just an observer anymore. I felt being there experiencing traces of a culture that is strongly connected to the lake and the life around it. We were talking about how things change, how they transform through events and human action; and how humanity today is derived with a deep force of development, its actions for welfare of masses bring disappointment to many people. Wallerstein also points out to the issue:

“Human actions have no doubt been motivated by efforts to survive and flourish, and one way to read Earth’s history is to see it as the story of the rise to primacy in the animal world of *Homo Sapiens*. The problem has been that, in this rise to the top, human actions have had the consequence of undermining the “conditions of production” in ways that may ultimately sap the ability of humans and others to survive in this planet.” (Wallerstein:380, 2007).

In his article where Wallerstein discusses that “for sustainable development there is no exit within our historical system”, he mentions “a burden of the past that ties us to the young, adults, elderly and the unborn at any given time”. Thus, Mehmet’s story about his craft and its relation to Teke culture, points out to the consequences of human actions in accordance to inefficient use of water in Burdur Region. He is concerned about coming generations, not only for the continuity of his craft but for the loss of sufficient lifestyles.

Part Two: The Research

Throughout my research, I encountered stories of change from past to current day. All along the way, I was asking my self whether mine is a longing for the past, or a remembrance of how efficient the lifestyles were before the

myth of development hit the soil with machinery? I realized there was no certain answer to this question because what we leave behind or forget about many cultures are in mutual relationship between what we do today for our needs and future generations.

The history of settlements around Burdur Lake dates back to 7000 BC. It hosted Greek, Roman, Turkic, Ottoman societies, Ruhms and Armenians, nomadic groups of Anatolia and many others. Today Turkish is the common language, but a Burdur accent can easily be recognized in the area. In my fieldwork I took advantage of the method of participatory observation where I could visit houses, yards, fields, streets, restaurants, offices, dams, mines and etc. All the photography used in the text is taken by me in the field. I held more than 40 semi-structured interviews, all of them were in Turkish and translated to English by me³. The interviews gradually led my research to various grounds where people pointed out more connections and names they wanted me to meet. As much as I understood of people's opinions, the place and its dynamics, I became open to suggestions outside my plans and organization, and slowly came to be more reflexive on my inquiry and questions within the context of Human Ecology.

I first went to Burdur to join an annual meeting of Doga, a non-governmental organization in Turkey that works for nature conservation⁴. They have been working in the area for 4 years now, making research, cooperating with local farmers for efficient techniques of using water, and birdcounting. We stayed in wooden buildings of Lisinia Wildlife Rehabilitation Center. Surface of the lake, was lying calm in front of us. It was July, so the days were too hot and nights full of enchanting sounds of nightjars and jackals -in addition to mosquitos. We were situated on the side of a mountain to the west of the lake; behind us were bushes, rocks and a few oak trees.

³ Turkish texts, articles and news used in this paper have been translated to English by me. Additionally all the photographs that are used in the text are shot by me during my fieldwork.

⁴ Nature Association, see www.dogadernegi.org

After the meeting, I stayed there for some more weeks and later visited the area in different times during autumn and winter. Fatih, who worked for Doga in Burdur, took me to the villages, wetlands, and brought me together with people who agreed to contribute to the research. My encounters were mostly stakeholders of the area such as locals, shopkeepers, farmers, local journalists, students and I had appointed meetings with governmental and commercial stakeholders such as Chamber of Agriculture, Association of Cattle Breeders, Municipality of Burdur and Chamber of Commerce. Even though Chamber of Commerce holds a great deal of importance on the political decisions taken about the water management, its president did not want to have an interview on the subject. He was the only one who did not want to give any information because of his political status. On the other hand, I had an in-depth interview with Erol Kesici, a professor of Aquaculture from Suleyman Demirel University of Isparta. Almost everybody was willing to talk about how the lake went away, and they knew how could it be prevented. But considering today's politics, no one was expecting a call for public participation and decision making. We did have a freedom of speech in our conversations, but there was an underlying ground that is set by the state.

Listening to everyone, I realized that many people -even the ones living in the city and not visiting the lake at all- had a similar idea about how and when the lake started drying up. But not all of the people were worried about Burdur's future, especially the ones who are not involved in agricultural production and rural livelihoods. Livelihood means "the command an individual, family, or other social group has over an income and/or bundle of resources that can be used or exchanged to satisfy the needs." (Wisner et al. 2004). Considering the definition coined for "livelihood", at many points I saw that I was also practicing some ethnographic exploration. Before I did not aim to make an anthropological analysis within this research, but I realized I cannot leave behind the ethnographic details which shape the perceptions and practices of everyday life.

As mentioned above, the idea of my research in Burdur emerged from my experiences and travels in Anatolia, so the search of water in people's eyes around Burdur have transcended my academic expressions for the day.

On the field, the territories I stepped foot in have shown me how people work, cook, eat, prepare for winter or do their other daily chores. I witnessed both works and days of the farmers and the city life of Burdur. My selection of the field setting turned out to be “a matter of my background, intuition, reason, and the result of a little bit of luck” (Anderson, 2006:40). Elijah Anderson chose a familiar field for himself to conduct his work, but that was not the case for me. I did not know much about this city and its culture, but I was mainly involved with the issues surrounding local cultures and habitats under the aspects of political ecology.

Questions and The Approach

“Political ecology is a new approach rooted in political economy and cultural studies and critically branching out to understand relationships between society and the natural world. It is a relatively new area of critical exploration” (Keil, Bell, Penz and Fawcett: 1998,1). So, I took the subject here as a case study of political ecology, which should be considered having several layers of indicators such as environmental degradation, socio-economic and cultural changes. Therefore, this study aims to explain the transformations of cultural and agricultural practices within the discourse of development and progress in Turkey through the example of Burdur Lake where state’s economic and environmental policies cause severe changes in the ecosystem and lifestyles. The details are embedded in the everyday life of people living in Burdur who witness the changes here. Livelihood is also an important concept here because in the field of political ecology as it studies the conflicts over access to and control of natural resources particularly as a source of livelihood. (Escobar: 2008, 46).

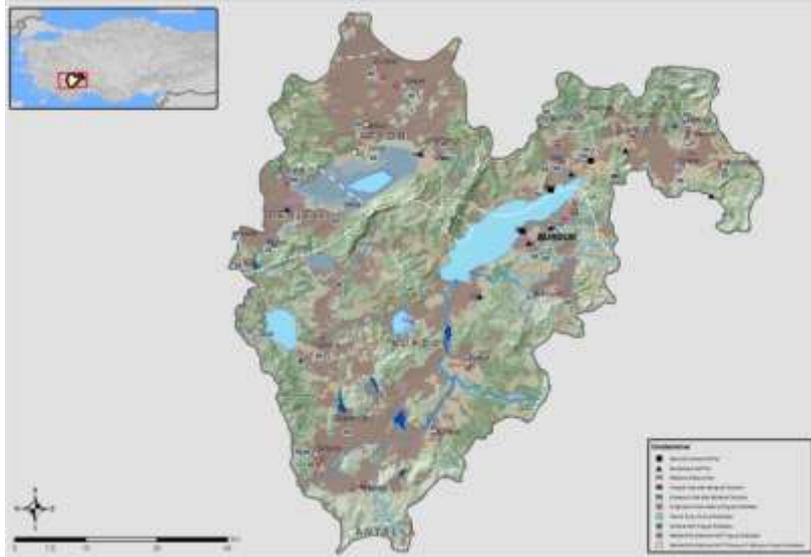
Now, there is a worldwide concern that humanity is overusing the natural resources on earth, especially water; and many of these resources cannot be replaced with anything when they are done. Many civilizations, societies and communities have gone through wars, conflicts and ended because of overuse, abuse and unequal distribution or privatization of resources. Whatever there is on nature is in expense of human needs.

Technology has come to a point where neoliberal policies, economic growth and regulations of states determine the use and continuity of natural resources. This affects not only environments, but also put many people in a position of difficulty in sustaining themselves. I use the word 'neoliberal' in reference to "a cluster of government policies that aim to privatize, liberalize, and deregulate the national economy so as to encourage foreign investment and intensify export production" (Sawyer: 2004,7). The results of neoliberal actions that governments take come out as environmental destruction and people's displacement.

Mainly this fieldwork evaluates the results of different techniques of using water in the area of Burdur in relation to their affects to livelihoods and expressions. Throughout my research, I followed the narration of locals, especially those whose livelihoods are practically in danger. I travelled around the lake, asking questions on how the agents affect this process and get affected from the shrinking of the lake. My research question was "what is the relationship between the loss of water and politics of environment, and how are the lives of local people have transformed with it?" What is the role of water management in these changes? Is it possible to prevent the lake from drying with a collaboration of state institutions and public on the long term?

In Turkey and all other countries in the world, nature and lives of people are threatened by large-scale irrigation, drainage and dam projects followed by mining, nuclear plants and many other industrial facilities. Communities that want to preserve their habitat, culture and social conditions, struggle against corporate actions and state policies that legitimize the destruction of nature and displacement of peoples. The world already faces rapid loss of its natural resources that are irreplaceable. Here comes the question of how marginalized local agents become amongst these procedures. Marginalization varies within scales on global and local levels, and it is fed by the legitimized acts of degradation of nature and culture by states. It describes the process of human societies being excluded from the mainstream system and thus having very limited access to social and natural resources to survive "in which political, economic and ecological expressions may be mutually reinforcing" (Gezon&Paulson: 2005,2). Therefore, we can

review the changes in Burdur as resulting with a strong possibility of marginalization of local communities in the area whereas the ecosystem is being destroyed.



Map 1. Burdur Region

On ecological changes, President of Doga, Guven Eken, gives a detailed example: “Nearly half of all the natural wetlands in Turkey have been lost up to now (approx. 1,5 million hectars). Several closed basins and lakes already face immense water stress. In these regions, wetlands of international importance are lost and farmers are abandoning their lands due to insufficient water for irrigation. Wetlands under threat will increase, unless the water policy of Turkey changes towards a more integrated approach. At least five wetland Key Biodiversity Areas (Eşmekaya Marshes, Hotamiş Marshes, Sultan Marshes, Ereğli Plain, Seyfe Lake) were lost entirely in 5 to 10 years”.

Burdur Lake is one of these areas that face a strong threat where I went to investigate opinions and discourses surrounding the problem. I did encounter different perspectives of the issue, but the realization that the lake is going away was shared by everyone. The shrinking is a phenomenon around the lake, a subject of everyday conversation, sometimes taken for granted. Even though one third of its water is gone in a short period of time of 30 years, with the absence of strong opposition to projects, it has been

acknowledged and accepted that water is leaving the lake. Mostly farmers had to reconstruct their lives and agricultural calendars according to the situation and were affected visibly because their production and income depend on water and climate -which have both changed dramatically.

The management of water in the area seems to be a failure. On one hand, the attention for conserving the biodiversity of Burdur Lake created an environmental movement for nature conservation; on the other, the state already running 23 dams in the area, today declared that another 11 will be built in the lake basin⁵. However, conservation and existence of 34 dams in the area cannot go hand in hand. Here, the concept of *environmentality* as a framework will be useful to understand the reflexivity among actors and environment. I take up the concept as it is proposed by Arun Agrawal as “a useful name, ..., a union of *environment* and Foucauldian *governmentality*, which stands for an approach to studying environmental politics that takes seriously the conceptual building blocks of power/knowledges, institutions and subjectivities.” (Agrawal:2005, 8). In situation of Burdur, environmental destruction is forced by political strategies that aim *development* and *modernization* of the region. Today, these two concepts may well be proudly discussed in main stream media and economic/political agendas. Discourses of modernity and development has been a subject of work for social and political sciences. Within a critical view, they are legitimization for destruction that is caused by their physical outcomes on habitats and people. The question of agency of local people on decision-making has already been raised. But before asking this question out loud, I knew the answer. No, they did not have any chance to state any opinions for their own good. That is part of how development crafts the mountain here.

I was in Cengiz Seylan’s yard, facing the mountain behind their village. It had white scars on it, holes dug by people. The area is very rich marble, but covered with bushes and oaks which has been a ground for grazing at some time. When I ask about the mines in the area Cengiz complains that “Now it’s a mess! They just come here, and look for marble. They work day and night,

⁵ <http://suyunizinde.wordpress.com/2012/06/09/burdur-golunun-sonu-25-yeni-golet/>

digging with cranes or exploding. If they cannot find anything, they leave. If yes, they keep digging and the company transports them by trucks. Hundreds of trucks pass by this place everyday, down the lake and out of the city. Imagine the sound and the dust they cause.”

When I asked him if they could do anything to stop the process. He told me that there was a lawyer is trying to work with legal procedures to cancel mine projects above the villages, but he also shared his and other villagers’ concerns: “What can we say against the state. We cannot do that. They will try to punish us, we can’t risk that.” This was a drawback, which showed itself to me in form of ‘common sense’ in many places. The power of the state has been a strong discourse for whatever is done or said by/about it; and the fear it leaves behind melts into everyday life language and perspective. Cengiz Seylan is local farmer, like all his neighbours. He shares the problem of other rural peoples in the world: economic crisis. Seylans’ income cannot afford a comfortable life with current prices of water, electricity, seeds, and fertilizers. If the problem is to be able to sustain families and to continue rural production, could the power of agency be interrogated in a case study of Burdur Lake?

In his detailed account on consequences of modernity and the human condition Antony Giddens emphasizes that “the idea of modernity is a contrast with tradition” but they cannot be compared to each other. As I have mentioned in Bedel’s and Seylan’s worries for their craft and culture, a yearning for past does not actually builds problem here. Instead it became clear to me that my social and academic encounters were a celebration of values and sufficiency of lifestyles which derived from harmony to their habitats and a struggle with the ongoing inequality and unfair treatment to nature and people.

Dealing with modernity and its affects on social life, Giddens discusses with us that “in traditional cultures, the past is honoured and symbols are valued because they contain and perpetuate the experience of generations... It is a mean of handling time and space, which inserts any particular activity or experience within the continuity of past, present, and future, these in turn being structured by recurrent social practices. Tradition is not wholly static

because it has to be reinvented by each new generation as it takes over its cultural inheritance from those preceding it.” (Giddens:1990, 37).

Around Burdur Lake, traditions are not reinvented anymore, because the region faces migration and the culture around it have been losing its motor elements, most specifically water. When I have looked at the literature about the lake, I saw that majority of the studies were scientific that adopted and prioritized while creating discourses. I believe, we also need to adopt social perspectives on ecological and cultural transformations in the area to comprehend the threats it is facing. Since water feeds all the ecosystem and has been the reason of life around this lake, the lake itself needs to be considered as an entity which people’s lifestyles are built upon. “Water could also be thought of as having an identity that, far from being purely physical, is intimately bound up with social (and socio-technical) relations, practices and values.” (Cohen and Murphy:2001, 159).

In my fieldwork, I followed how meanings given to water and its practical use in the area evolve within “the development of a domain of acts, practices and thoughts that seem to pose problems for politics” that is problematization (Foucault:1984). In Burdur Lake, the problem of shrinking, even though it seems to be followed by its inhabitants, was not discussed on local or international media until Doga and other local groups started to take action and raised several campaigns in the last decade. Recently in 2012, 26th of February, 26 non-governmental organizations of Burdur took an initiative. After a meeting, they have declared that “Burdur Lake Management Plan must be revised and expanded to include all the activities that take place in Burdur Basin”.⁶

Part Three: Geographical Framework

It is important to elaborate geographical patterns of the region to grasp the ongoing ecological transformations. David Sack studies the interaction of human and its environment within the possibilities of geographical framework.

⁶ <http://wap.ntvmsnbc.com/Haber/Goster/25327092>

In his book *Homo Geographicus*, he suggests that “to understand the place and time, while grasping the dramatic changes that take place in the long term. Along many definitions, humans, can be considered as geographical beings transforming the earth and making it into a home, and that transformed world affects who we are (Sack:1997,1). That is how societies come to be, and cultural practices from languages to crafts, songs and clothing, architecture and technology are determined by what the environment offers to those who came close to the water –that is the source of life.

Territory that Turkey covers, has been both a bridge and home for many societies for 15 thousand years and a shelter for species during ice ages in the last 2 million years. In the meantime its biodiversity of the current day was shaped (Eken and Ataol:2004, 24). However, today Turkey’s nature is under serious threat. Neoliberal policies and markets of the day, harms the environment (in many cases irreversibly) through the use of industry and technological improvements. Dams, mines, power plants, and other facilities affect habitats and well being of people and other species.

When a territory holds such features of diversity, and consists of biodiversity on local scale, these areas gain the status of conservation within regulations. There are many international treaties that pursue conservation and protection of natural sites. Because “overextraction of natural resources can degrade or significantly alter elements of an ecosystem, tipping it beyond its ability to sustain the same degree of biotic productivity and diversity or to recover from the external perturbation.” (Stewart:2005,42).

Norman Myers coined the term “hotspots” for areas that carry high levels of biodiversity, and face the threat of destruction. He made a hotspots analysis which reveals that two-fifths of all species, roughly reckoned, are under extreme threat in just 1.4% of Earth’s land surface; and suggested that if we protect these areas, we would do more to stem the current mass extinction than we could through any other single measure (Myers: 2003, 917). 3 of 34 biodiversity hotspots in the world - Mediterranean, Caucasus and Irano-Asian- intersect in Turkey. Therefore the landscape varies from south to north, and east to west. Among plants, birds, mammals, reptiles,

amphibians, freshwater fish, butterflies and dragonflies Turkey hosts 2246 species that meet criteria of Key Biodiversity Areas (KBA) on global scale and there are 305 areas in Turkey which has this status for conservation today (Eken, Bozdogan, Isfendiyaroglu, Kilic & Lise:2006, 21).

KBAs of international importance are selected by using standard, globally applicable and threshold based criteria taking into account the distribution and population of species for which site conservation is appropriate. These criteria are built on two main principles of selection of site conservation: vulnerability and irreplaceability (ibid:2006, 2). In the light of this, Turkey, on its 783,562 km² landscape, possesses pieces of biological diversity of a territory from North Africa to Siberia and China.

Burdur Lake and its Conservation

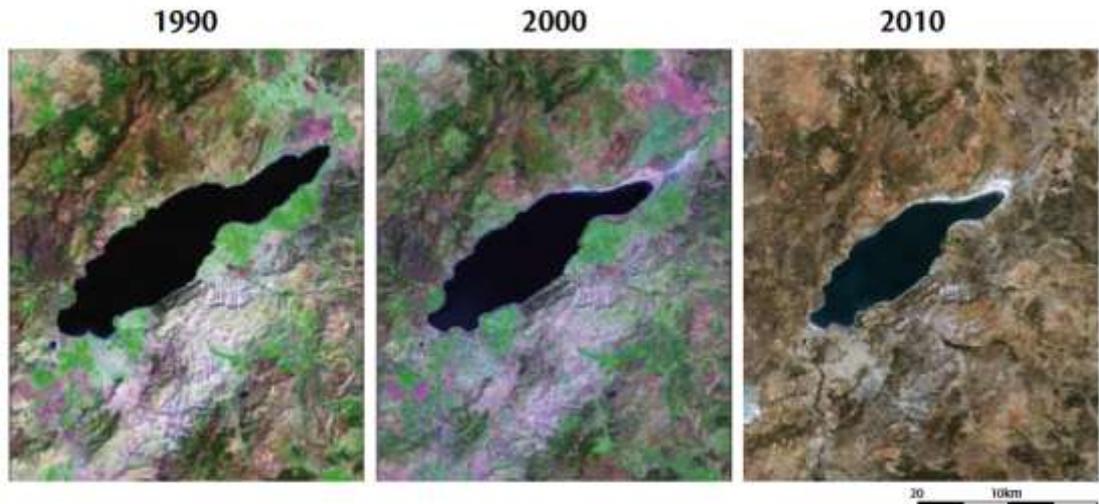
From the spring to the mouth of a river, the ecological structure of rivers build a chain of continuous transformation in different seasons and water sources follow each other's cycles (Veryeri: 2006,34). Altogether, time, rivers, mountains and climate give shape to basins. In a basin, water cycle determine other beings on a landscape; lakes, vegetation, animals and plants. The map below shows the river basins in Turkey, and Burdur on the southwest, is one of them as a good example of *closed basins* which consists of Burdur Region and some parts of Isparta, Afyon, and Denizli.



Map 2. River basins in Turkey.

Lakes hold a serious importance as fresh water reserves in the world, shaping biodiversity and they are in danger, by pollution, contamination, draught and overuse of resources. My case study is only one of the lakes that can give a detailed account of change in a short period of time. It is visible today how much water is lost in the last 30 years. Mayor of Burdur, Sebahattin Akkaya tells me that Burdur Lake is one of the deepest lakes in Turkey (90-100 meters deep) and it almost lost 10 km squares out of 40 of the lake's surface. The water level dropped 15 meters; we used to jump from the rocks directly into the lake". Today those rocks are more than 100 meters away from the water.

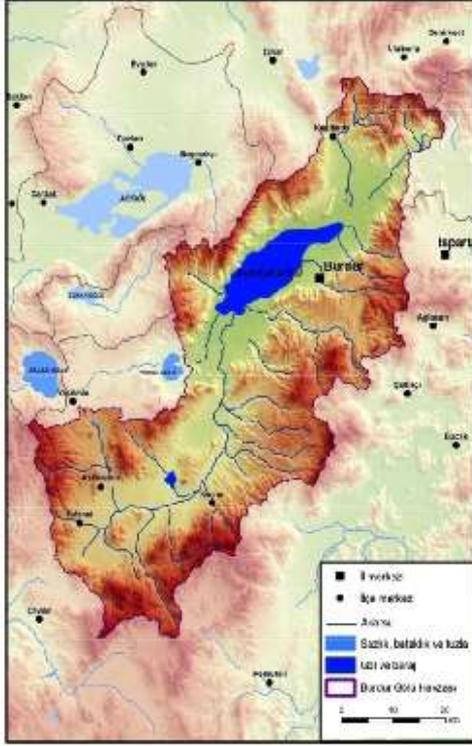
Data gathered by Doga shows that lake's surface area has shrunk from 228 km² to 153 km² and if it continues to dissappear in this pace, there'll nearly be no water on it in 2040. Satellite images taken in 1990, 2000 and 2010 shows how the lake has changed:



Map 3. Satellite images of Burdur Lake from 1990-2010

Burdur Lake is the 7th biggest lake of Turkey, which is located on the southwestern part of the country. It is a wetland area listed as ‘internationally important’ within the Ramsar Convention. Ramsar was first signed in Iran in 1971 for the protection of wetlands all over the world. Ramsar Convention on Wetlands came into force for Turkey in 1994; the same year Burdur Lake was designated the status of Wildlife Protection Area⁷. (Since then, hunting is forbidden in Burdur Region, but unfortunately I heard that they still do.)

⁷ http://www.ramsar.org/cda/en/ramsar-pubs-notes-annotated-ramsar-15840/main/ramsar/1-30-168^15840_4000_0__



Map 4. Geographical Map of Burdur Basin.

It is a tectonic lake which contains salt and arsenic so its water quality does not allow any freshwater fish or plants to grow in the area, except an endemic fish, *Aphanius Burduricus*⁸ living in the lake. Even though the number of fish is low, the area holds an important value for at least 100 species of birds that come to the lake whole year around. Ramsar Convention reports a record of 300,000 wintering birds counted in the lake in between the years of 1994 and 2008⁹.

Especially 70% of the world population of critically endangered species, white-headed ducks (*Oxyura leucocephala*) migrate to the lake as a wintering site. According to Birdlife International reports, their numbers have declined dramatically from 10,927 in 1991 to 653 in 2001 in Burdur Lake¹⁰. In 2012 Midwinter Bird Counts conducted by Doga, only 454 white-headed

⁸ Hakan Yigitbasioglu, Abdullah Ugur, "Land-use features and problems in the Burdur Lake Basin", *Ankara Üniversitesi Çevre Bilimleri Dergisi* 2(2), 2010, pg.133.

⁹ http://www.ramsar.org/cda/en/ramsar-pubs-notes-annotated-ramsar-15840/main/ramsar/1-30-168^15840_4000_0__

¹⁰ <http://www.birdlife.org/datazone/speciesfactsheet.php?id=359>

ducks was counted, and the association stated that 93% of the species have disappeared from the lake in the last 22 years¹¹. The main reasons are the loss of water and pollution in the lake.

Musa from Asagimüslimler Village told me that he used to see so many birds on Soganlik: “As the lake dries, Soganlik also had the same destiny. I remember coots everywhere, we would come so close to them. I was walking among them. Now, they are so afraid of us, they fly away as soon as they see humans. What we have done here, overused the water and dug the mountains. They know what we have done and they don’t like it.” Soganlik is the wetland where many birds would breed and it is strongly connected to Burdur Lake.

From the same village, Aysel Seylan told me that they used to avoid grazing their sheep around Soganlik. “Because it was so muddy that sheep would get stuck! We used to go help people to get their sheep out of the mud, you know. But today, where is that? It is all flat soil. Even tractors drive through it!”

Keeping local memories in mind, I met with Erol Kesici, professor of Aquaculture, and he emphasize the importance of preserving the biodiversity of a region: “If there are birds somewhere, there is biodiversity. They go there for food and nutrients. And if they cannot find what they need anymore, they simply leave. For example, white-headed ducks come here for a reason. They feel comfortable; they can spend the winter and find food. It is suitable for their existence. But now, they don’t like where they rest, they don’t like the pollution in the water. So they don’t come here anymore. They go somewhere else, or they die.”

The lake has an international protection status but its Ramsar Status does not guarantee conservation. Obviously, the state needs to take more actions for monitoring the pollution and excessive irrigation. For example, the project for Waste Management Center, which started a decade ago, was completed in March 2011. From then on waste of the city is filtered. But the

¹¹ “Birds Are Leaving Lake Burdur”, 10th of February, 2012, <http://www.dogadernegi.org/haberler.aspx>

report in Burdur Municipality website does not give any information about the sugar factory near the lake on how they process the industrial waste. There is an artificial pond to dump industrial wastewater from the factory; but since it is situated 50 meters away from the lake, it raises a bit of a suspicion. When I was on the spot, I realized a truck approaching to the lake and leaving construction waste to the south of wetland protection area.

A shopkeeper in the city was pointed out to this fact that “it is both institutions and people’s fault; but we need to come up with solutions altogether. The lake is polluted. It’s mud! You cannot swim in that. Even Insuyu Cave is drying. It was one of the main sources of the water here up north. If we do not take care of it, who will? Institutions and civil organizations should take better actions to keep the water.”

He assigned the responsibility to governmental institutions and non-governmental organizations. Today, the municipality is working on several local levels, Doga has many campaigns and projects for efficient irrigation systems and protection of the habitat and other local initiatives started to rise as I have mentioned before.

In an article, concerned with the failure of Ramsar Convention on the case of Burdur, it is reported that “an examination of Burdur Lake case more specifically reveals presence of multiple institutions in charge of environmental regulation, including the municipality (mainly waste treatment and drinking water supply), the provincial directorate of the Ministry of Environment and Forestry (enforcement of environmental regulations), the regional directorate of the State Hydraulic Works (water usage and regulation), the provincial directorate of the Ministry of Agriculture (guidance and support to the sector), and the governor (coordination of different public institutions). The crude reality, however, is that conservation policy at Burdur Lake has been rather ineffective in preventing the replication of many other cases of degradation seen across Turkey (Adaman, Hakyemez and Ozkaynak: 2009, 5).

Part Four: Social Framework

I wanted to see the loss with my own eyes, so I went to the northern part of Burdur Lake where it started to shrink. We were three people travelling through the fields, we saw a tractor ahead and stopped to ask the lady which way we should go. When I asked how we could reach the lake, she said “There is no lake here. The lake is down there.” and pointed at the city. We travelled a bit more until the fields of wheat and corn ended and we reached 10 kms long dry land, its deep cracks and some spring that struggle to reach out.

Later when I showed photos to some people they did not believe this dry land was part of Burdur Lake. Özgül, aged 24, from Karakent, told me her concerns: “I remember a time when the lake was higher, it is going away slowly. We have seen it, but my child will never see that. Our children’s children won’t see anything. Just a big emptiness.” Therefore, as many examples of interviews revealed, Burdur Lake’s disappearance causes disturbance and worries for future generations but how it affects rural life is another story. A similar situation goes on many lakes around Burdur and many places.

The president of Association of Cattle Breeders, Kamil relates the example of Yarisli Lake to his description of what is going on in the region. He says, “Yarisli Lake was not dry in winters, but now it is. The loss of water in the lakes changes the humidity in the weather; therefore the products. We used to grow green beans here, now it is impossible. The weather is too cold for them.” Yarisli Lake is located in Burdur Region and it also faces the threat of losing its water. Changes in the climate is a sign of disadvantage and force of change for farmers, because water determines agricultural patterns of an area.

Burdur Lake is fed by rain, underground waters, seasonal and constant rivers. As the lake gets smaller, there is less rain. The rivers around the lake are dry during summers and water is only transferred by evaporation. According to the scientific study done by Kantarci, evaporation in the Lake

region have increased in the last 5 summers and there is an inverse proportion on levels of evaporation and humidity in the area. The more evaporation there are, the humidity is decreasing (Kantarci: 2008, 20).

One of my interviewees, Cengiz Seylan's wife Aysel also points out to this: "It used to be humid here. Now the weather is too dry, nothing can grow. Humidity means that the soil would be more fertile. Now it is not efficient for plants to grow. It used to be hot in autumn too, before. But now, without the humidity and early frost our crops die as soon as they start growing out on the soil." Her perspective is fed by her practical knowledge based on years of experience working on the land. Her local ecological awareness comes with her everyday knowledge where she gained it through cyclical connection with land and water. She told me that "we all come from the soil. We live by soil, we walk on soil. And we will go back to soil. Mother earth is everything to us, she makes it possible". They produce apples, apricots, opium, wheat, onions, potatoes and fodder.

Water and Agriculture

Small-scale farming has been one of the most important aspects of cultural and social diversity for local communities of Anatolia where many could and can sustain themselves in efficient ways. With globalization, these farmers have started to disappear and chose monocultural production regulated by the state, multinational corporations and their distributors.

The area around the lake is mainly used for agriculture, accomodation and industry. As counted in 2000, 60% of the population in the region are farmers¹², and they mostly produce grain, corn, opium, chickpea, sugar beet, rose, walnut, apricot, apple, annise, potato, onion and other vegetables. In the area surface irrigation (flooding) and drop irrigation methods are used with modern agricultural technologies. According to the people I've conversed with, Burdur is of the biggest sugar, rose oil and annise producer in Turkey. Yigitcibasioglu and Ugur report that "in 2008 Burdur Sugar Factory have

¹² www.tuik.gov.tr

produced 49,750 tons of sugar from all the sugar beets from the region under a pact with all the farmers”. Sugar production in the region is one of the main investments that has been presented to bring economic growth, but together with capital it brought pollution by industrial waste and pesticides to the lake.

This example is followed by the Sulphur Factory which was closed in 1994¹³ that poured all the waste to the lake; Suleyman Demirel Airport which was opened in 1997 against strong objections due to the existence of critically endangered white-headed ducks and other species on the lake; the absence of a proper waste water treatment facility for the city until 2010; and the fact that the Organized Industrial Zone of Burdur, which is situated on the east coast of the lake, runs without any waste treatment facilities. As explained before this is a closed basin so water does not go anywhere out. However, as a consequence, living beings and people do.

Today, cities offer employment in industry, construction and service sectors, so many people who give up rural life migrate to the cities. People, especially the young move to city centers in order to find jobs and cover their expenses. Thus, whereas density of population in the cities increases, the number of people living in the villages falls. For example, Kavacik Village, where more than 500 people used to live, has a population of 178 people now, with the average age of 60. One day I saw some young people there around a fire, and I asked them if they are living in Kavacik. The answer was “There is nothing here, why would we? We live in Burdur. There are jobs, and recreational areas. Our elders live here. It is empty.” When I looked around me, there were opium fields, trees, and traditionally built stone houses; I saw a wonderful village, but they were not thinking the same way.

Since 2006, with the establishment of a university in the city, students have increased the population. But in the meantime many people move to Isparta, Denizli or to the south, Antalya to find jobs¹⁴. On one of my walks in the city, I met a shopkeeper who was born in Senir Village who told me his story of migration: “In 1973, after the earthquake, the lake rose and flooded

¹³ <http://www.burdur.gov.tr/>

¹⁴ It is important to point out here that there is also a Chinese population increasing in population due to the gradual increase of marble mines in the region. I will elaborate this later.

into the villages that are located in lower levels, into Senir and Yazikoy. It covered agricultural land and houses. In those days, a lot of people left their houses and migrated to Isparta and other cities, or like me, to Germany or Holland for work. Today, instead of flooding our houses and fields, it is running away.”

In 60's and 70's, Germany, Holland, Belgium and other European countries demanded laborers from Turkey, offering them residency and jobs; thus in those years, a lot of Turkish families migrated to Europe. Numbers from statistics show that between 1960 and 1970 more than 1,5 million people moved to Germany (Yildirimoglu: 2005,7). However, in Burdur, there was other coincidences at the time. First of all, in 1971 there was an earthquake which killed 57 people and destroyed 1389 houses (Yigitbasioglu & Ugur: 2010, 132). The lake flooded many times after the earthquake on the land that is used for production, many people who lived those years remember it clearly. But the most important force of migration is mechanization of agriculture in Turkey which started in 1950's when tractors and other machinery was introduced to Turkish markets. So, a country of traditional farmers and variety of agricultural patterns based on seed diversity started to transform into mechanized monocultural production which left a lot of families unemployed and forced them to migrate to other cities or countries.

“Even though, young people leave the villages, this region keeps a lake culture” says Öztürk from Karakent with more enthusiasm than many others. “..and this culture affects how people feel and live ere; whether they are happy, comfortable, sad or not...”. He is the veterinary of the region, and has started a project trying to grow tomatoes, chickpeas and gooseberries without any application of fertilizers. He established Wildlife Rehabilitation Center, where he created job opportunities for young people of the region. As he puts it, “the lake is inevitably central to everyday life here, for the continuation of our practices, most common of them agriculture and pastoralism. Since this is a closed basin, the rivers, rainfall and underground waters determine the lake in every season, and how people gain their income, feed their families. If water stays in the lake, life will continue here”.

Underground waters and springs were overused in the area in the last 40 years. Meanwhile flooding the field has been a regular irrigation technique due to the amount of water that monocultural production of sugar and fodder needed. Today, many farmers started to use drop-irrigation system in order to save their resources and income. Before everyone applied techniques that are introduced by State Hydraulic Works's irrigation cooperatives, which they now think wasted a lot of water at the time. Showing me his field of apple trees, Cengiz Seylan also admits: "We've been using the water excessively. Many villagers drilled wells and took all the underground water for years. It will come to an end one day. We try to do something about it. But inevitably, as we go away from the lake, the lake goes away from us."

There are almost a thousand of illegal wells are around the lake. The area before mechanization of agriculture and sugar production, fit to a more efficient agricultural production with less water use. Today many people realized that the water they used to flood and irrigate their lands in previous years is one of the strongest reasons of the shrinking. Thus, some of the farmers took initiative and courage to change their irrigation systems in order to save water and sustain their economy. Three different farmers have began to use drop-irrigation system in the last 4 years, their work was supported by Doga as pilot projects for efficient use of water in Burdur. Today, there are more and more farmer who turn to drop irrigation system.

Analysis

One reason of change for people to grow awareness and responsibility for Burdur Lake is the disappearance of their own resources. What is the main reason for the water to leave this place? Leaving the narration to the people I talked to, besides illegal wells the reason was obvious for everyone. This is 23 dams of State Hydraulic Works (Today, it is the department of Ministry of Forest and Water) that are built on the rivers surrounding the basin. These dams have been built for irrigation and water supply for the city. The first dams in the region were built on Bozcay river in 1974 to support irrigated farming instead of dry farming that existed in the area (Ataol: 2010, 85).

Turkey, is going through a process of water privatization where AKP government made it easy for international corporations to invest in Turkey. Thus, when a company comes to an area to build a hydroelectric central, dam, mine or any other energy facility, they can rent the land for 49 years for low prices. These companies have to give Environmental Assessment Reports. However, in many places in Turkey, these reports are bypassed or does not have any validity due to unethical business strategies of international corporations and the state. The construction of hydroelectric centrals in Turkey is shaped by the neoliberal policies based on profit. During preparations of Environmental Assessment Reports there are many false statements and data. In his interview Guven Eken explains how, “Especially, environment consultancy agencies that are responsible to prepare these reports, present the results without enough data from the field; or sometimes they do not even visit the field. Sometimes they just copy and paste from other reports or previous research. In addition, Ministry of Environment and Urbanization which is responsible to monitor negotiations and reports, and decide to act upon them, usually prioritize not the well being of environment, but construction of projects as quickly as possible. Thus, meetings for Public Participation in the field and Commision of Evaluation in the ministries turn out to be a show.”¹⁵

In Burdur, dams were built parallel to the introduction of new irrigation techniques and different agricultural patterns in the region. Sugar beets, corn and clove are the ones that needs most water. Corn and cloves in the area are produced as fodder. Most of the farmers breed cattle to sell the milk to the tankers that keep coming to the city everyday. Based on data for the year 2003, milk production was 243,423 tons and total stocks of cattle in Burdur were 104,255, most of the heads were European breeds, mainly Holstein¹⁶. Holstein cattle was bred in and introduced by Holland to many countries and

¹⁵https://docs.google.com/viewer?a=v&pid=gmail&attid=0.1&thid=1387a7a7f055ee2e&mt=application/pdf&url=https://mail.google.com/mail/u/0/?ui%3D2%26ik%3Dd491e2e21b%26view%3Datt%26th%3D1387a7a7f055ee2e%26attid%3D0.1%26disp%3Dsafe%26realattid%3Df_h4jmf8mj0%26zw&sig=AHIEtbS-Gah0buHGno9mKZ0CLaBVMpn5Xg

¹⁶ “Towards a wise use of Turkey’s water resources” in Burdur Technical Report, Mava and Doga, April 2008, pg. 10.

today it is known as the most efficient cattle in the world that gives more milk than a local cow. In short, Holstein cows are the monoculture of livestock.

I was told by many and as *Teke* Region suggests from the name symbolizing the male goat, this area was one where goats were the majority of animals that were bred and the livelihoods were shaped by them. If looked at *yörük* culture songs, stories, cloths, bags, covers, scarfs, accesories, carpets, tents and many other things are related to goats one way or another. When I spent more time in the region I've realized the importance of goats more and more. However, in Burdur, as new techniques of irrigation and profit-based production were introduced to locals, goats lost their economic value –and cultural representations.

Jules Pretty reminds the reader of how come “accumulated and traditional knowledge of landscapes and nature is intimate, insightful and grounded in specific circumstances” that she emphasizes the values produced by “Communities sharing such knowledge and working together”. (Pretty: 200,3) These communities are more likely to engage in sustainable practices that build local renewable assets that supports the connection between nature and people. As the case of Burdur also suggests many communities lose this mutual relationship of nature and culture within transformations of local economies. These processes take different forms, but common backgrounds in many countries that went through discourses of modernity, development and technological advancements.

Turkey has invested so much energy and effort to spread conventional agricultural after the Republic was established. Atatürk, the founder of the republic, was promoting the concept of massive agricultural production and therefore mechanization of agriculture, to a level where acres of land were sacrificed for the production of sugar beads, cotton and wheat. He was saying that ‘our nation is formed of farmers. We have to take the opportunities for farmers to the highest levels with contemporary and financial measures’¹⁷. A better economy for a growing population and development were the main discourse since Turkey has faced war and economic crisis after the end of

¹⁷ <http://www.aoc.gov.tr/index.php?view=gnl&nid=38>

Ottoman Empire. The unity of a nation was being constructed and every citizen was called to the campaign of reconstruction and progress. Most of the country was dependent on agricultural labor, and rural lifestyles. And to improve the country's economic status on international scale there was an urgent need of modernization and increasing agricultural input. With a country of diversity of local seeds and small-scale agriculture, more agricultural land was needed and mechanization was forced. The motto was "Agriculture is not possible without machinery."¹⁸

In order to mechanize and therefore industrialize agriculture, many ecosystems had to face major changes. Many irrigation dams and channels were built on valleys and rivers; also drainage of wetlands, lakes and marshes took place. Most of the agricultural production and pastoralism is dominated by conventional techniques today, and transforming environments for economic purposes still continue. In many areas, results for the economic income is relatively as expected and planned, but the consequences for nature, ecosystems and cultures do not offer a safe future or present for sure.

For the sake of development and progress, humanity has destroyed so much of the earth today. To call this situation 'destruction' is a choice I make, as many others, who had witness and witness the extinction of species, loss of biodiversity, deterritorialization of people, traditions, languages and cultures. Discourse of development is so strongly supported and promoted by governments that the actions many states take cause irreversible harm to life on this planet. Mountains are exploded for energy facilities and mining, valleys are left under water for dams, marshes and wetlands dried for agricultural purposes or urbanization. These are just a few examples of what humans do to environments and intervene to the dynamics of nature. However, we need to keep questioning and looking for solutions to reach conservation policies that guarantee the protection of ecosystems, species and cultures.

Part Five: Conclusion

¹⁸ <http://www.aoc.gov.tr/index.php?view=gnl&nid=38>

The system that produces and legitimizes the policies that destroy ecosystems would not admit “I will destroy this river. I will dry this lake. I will harm the structure of a stream. I will cut these trees, or I will bring extinction to this and that species.” It does, but it does not declare this in public spheres. Instead politicians –without any conscience- make irrational statements such as “Water flows for nothing” and open the gates for projects. They sell all the rivers and springs for hydroelectric central and dam constructions. As if that is not enough, they represent this with the discourse of ‘development’ or ‘green energy’ etc. It is important to explain to the public that these statements are not reliable, but this is a difficult task. We encounter many dogmas like environment faces today.

For example to plant trees on every possible area finished tundras. When the soil flowed to the sea, they called it a ‘disaster’. However, the life in the sea, starts with soil. There was a time goats have been cursed and became scapegoats. Later it was understood that if they are not overpopulated, goats are best friends of the forests, their existence in the forests prevent forest fires. To fight with harmful insects, all insects in fields were killed. Thus, the chains of ecosystems broke. They said “Dams are beautiful”. In southeast of Turkey, millions of acres of land have been salted for the Southeastern Project (of dams). There are more examples like these. However, the common feature of all is the blindness that is born out of greed for money.¹⁹

In a critical point of view of political ecology, development and progress signify unequal ecological exchange. In the case of Burdur, where cycle of life is disturbed by forces brought with technology and politics, I realized that the failure of conservation policies (not being specifically in favor of Burdur Basin) and the dramatic changes in agricultural patterns reveal the how greed for money is legitimized through state institutions. For example, in our interview, head of Chamber of Agriculture in Burdur, told to me that he believes that “the reason for the lake’s disappearance is the forests around it, which keep the rain water that should reach the lake.” Having seen dry rivers in the area that

¹⁹ <http://cadde.milliyet.com.tr/2012/08/08/HaberDetay/1577681/>

lost their stream because of irrigation dams, his explanation was not valid in this case. But what follows later in our interview revealed more to reconsider for the future of the lake: “We are improving new projects for efficient agricultural techniques in the area. While reconstructing some fields with drop-irrigation systems, we will also handle the land where the lake withdrew. Because those areas are standing there for nothing. Now it seems dry, but when we treat the soil, we will be able to do agriculture there. That area used to be part of the lake, but now it just sits there for nothing. That soil is our national treasure, we should utilize it for the sake of our economy.”

The steps government agencies take and their consequences show that they do not consider conservation as a priority before ploughing the dry land and bringing the water from dams. However, the results of the research - conducted by Bosphorus University in 2009- on the conservation policies of Burdur Lake shows that “an overwhelming majority does not see the conservation of the basin as a barrier to economic development and (ii) a strong majority is in favour of a more deliberative governance modality and is ready to volunteer its labour and donate money to save the lake, there surely is an opportunity in the Burdur case for local endorsement of conservation efforts and building a domestic power bloc against industrialists. Yet, the realisation of this opportunity mainly depends on the extent to which alienation and collective action problems are dealt with and support is channelled. At this very point, a conservation strategy that is tailored to Burdur and framed by the epistemic community at the national level by ensuring participatory decision making among stakeholders would be a good way to take into account local needs and concerns, including those of the farmers, and to handle the alienation problem that originated with the ‘hard-park’ approach. Furthermore, we believe such a conservation strategy would boost cooperation in the local community, easing the collective action problem and creating a supportive domestic coalition towards conservation.” (Adaman, Hakyemez & Özkaynak: 2009, 15).

The critique posed by these scholars points out to one of the research questions of this fieldwork which focuses on public participation and ambiguity

of any agency that is exercised by locals. States, governments, organizations and economically powerful political agents came to a point where, today the concept and implementation of the rights of nature are at hand with the issue of public participation. We have risked and destroyed so much of the continuity of ecosystems, some countries today, change their constitutions so the law can be on the side for environment. However, the more nations there are to involve in each others' economies and land; creating balanced regulations and setting strategies are harder. Societies regulate themselves one way or another, but with the rise of industry and urbanization in the last century, communal livelihoods began to lose their habits and customs due to massive consumption. Unless we find ways to be able to live within nature's patterns, massive production and consumption systems will continue to overuse resources to the extent of killing ecosystems.

Today, urban life cannot sustain itself without external resources, and is dependent on mass consumption. Industry has become the center of production of goods, conventional agriculture of food. The demand created by markets forces food production to the levels where many agricultural fields become mono-cultural food sources. Basically as Jules Pretty points out, "recent thinking and policy has separated food and farming from nature, and then accelerated the disconnectedness. Food now largely comes from dysfunctional production systems that harm environments, economies and societies; and yet we seem not to know or even to care overmuch." (Pretty: 2002,3). This system continues unless local peoples, producers and consumers stand against it and reject mechanization, privatization and sovereignty over their rights of land, water, nature, seed and life.

The subject of this paper, Lake Burdur is a good example to explain the relationship among water, agriculture, and power relations around it. This subject needs to be widened. Until recently, there was a common cultural life in Burdur that used to go hand in hand with the lake and its offerings. Lifestyles here existed with the rivers flowing into the lake, wetlands around it, caves, underground waters, dry agriculture techniques, goats and watermills.

When the state forbid goats to get in forests, goat breeding has transformed to cow breeding. To feed the cows farmers could not practice dry agriculture anymore because it did not give efficient fodder for livestock's. So they started to use excessive water to produce crops. Thus, milk production that was promoted by breeding cows has changed the way the water is used in Burdur Basin. Irrigation dams were built on every river that feed the lake, and today the veins of the lake cannot carry life to it. Basically lake's water goes out from the region as milk.

Burdur Lake is headed to be a desert. The result of the change in the way the water is used in Burdur Basin will be dry soil full of arsenic and a region without people, culture and nature. Lake Burdur's closed basin is exceptionally rich for freshwater biodiversity. And the lake is a stopover site for migratory birds, especially for the precious white-headed duck (see red list). But the wetlands that create the conditions for well breeding of this biodiversity have been drained in just a few years. The need to sustain freshwater ecosystems and a self-sufficient population around the lake was unfortunately not taken into consideration for a long time until the threat became obvious. "Agricultural and food systems with their associated nature and landscapes are a common heritage and thus, also, a form of common property. They are shaped by us all, and so in some way are part of us all, too... They are places that local people know, where they feel comfortable, where they belong. (Pretty: 2002, 2). However, in Burdur, people would not be able to stay where they belong, because consequential loss will be rural exodus, dehydration of the wetlands around the lake, extinction of species and plants.

Burdur Basin has been given me the opportunity to grasp the dramatic changes of lifestyles in Anatolia's rural sections. Burdur is one of the most important areas where the lake creates cultural and biological diversity through its delicate ecological sufficiency. But industrialization of the region's agriculture and the restrictions on the herdsman's craft, leads both the lake and local life to a total collapse here.

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6. Footnotes

¹ <http://www.tefenni.gov.tr/tefenni/hyunum.html>

¹ <http://www.terralingua.org/>

¹ Nature Association, see www.dogadernegi.org

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¹ http://www.ramsar.org/cda/en/ramsar-pubs-notes-annotated-ramsar-15840/main/ramsar/1-30-168^15840_4000_0__

¹ Hakan Yigitbasioglu, Abdullah Ugur, "Land-use features and problems in the Burdur Lake Basin", Ankara Üniversitesi Çevre Bilimleri Dergisi 2(2), 2010, pg.133.

¹ http://www.ramsar.org/cda/en/ramsar-pubs-notes-annotated-ramsar-15840/main/ramsar/1-30-168^15840_4000_0__

¹ <http://www.birdlife.org/datazone/speciesfactsheet.php?id=359>

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¹ <http://cadde.milliyet.com.tr/2012/08/08/HaberDetay/1577681/>