



CANAL ISTANBUL WORKSHOP

10 JANUARY 2020



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iSTANBUL YOURS

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INTRODUCTION

While this report was being prepared for publication, The Global Risk Report 2020 that was published before the World Economic Forum at Davos (WEF) declared the climate change as the greatest risk that the World has ever faced. The following sentence uttered during the public release of the report in London is scary: "The World is sleepwalking into a disaster." For the first time in the last 10 years of Global Risk Reports, environmental concerns constitute the top five long term risks. In the decade to come, the risks with the highest likelihood are listed in the Report as follows: extreme weather events, failure in the fight against climate change and adaptation,

Turkey is discussing Canal Istanbul Project, which, if undertaken, will cause irreversible environmental damage and deepen the effects of climate crisis with the urban heat island that it will create. More precisely, the country is being forced to discuss the Project out of a blind persistence despite all the facts laid out by science.

natural disasters, loss of biodiversity and damage on ecosystem, and human related environmental harm and disasters.

The developments of 2019 on climate crisis indicate that the risks will spread across the whole world in less than a decade. Confirmation of July 2019 as the hottest month ever recorded, the heat wave that paralyzed Europe across the last summer, continuous rain and ensuing floods in

African countries, perpetual storms in the United States, spreading of Japanese typhoons to the large part of Southeast Asia, and 4-month-long mega fires in Australia all point out the fact that the world has been very late to move against climate crisis.

Despite the fact that the overall situation is becoming ever more threatening, Turkey is discussing Canal Istanbul Project, which, if undertaken, will cause irreversible environmental damage and deepen the effects of climate crisis with the urban heat island that it will create. More precisely, the country is being forced to discuss the Project out of a blind persistence despite all the facts laid out by science.

This workshop report examines the destructive effect that Canal Istanbul Project will have in terms of environment, climate, social structure, cultural assets and international relations. The enthusiasm of undertaking the Project as soon as possible does not only stem from the concern of keeping the mega projects alive. Those who needed to sustain the construction-driven growth model that flourished with the cheap credit opportunities, which were made



available following the 2008 economic crisis, could not see another option but to insist on the construction of the mega projects no matter whether these projects were in contradiction or not with public interest, common good and environmental conservation. Surely, that is a political choice..

Rather than spending the public money on alleviation of income inequality, enabling the citizens to work under humane conditions, decreasing the market pressure on basic services like education and healthcare, making the urban services cheaper and higher quality, protecting the environment and creating a more liveable city, wasting it on a project like Canal Istanbul would only benefit a handful people, not general public. They want to justify the Project with the illegal changes made by Istanbul Metropolitan Municipality on the Environmental Plan in 2009 and Environmental Impact Assessment Report (ÇED) that is loaded with ambiguities and dubious scientific quality.

Rather than spending the public money on alleviation of income inequality, enabling the citizens to work under humane conditions, decreasing the market pressure on basic services like education and healthcare, making the urban services cheaper and more quality, protecting the environment and creating a more liveable city, wasting it on a project like Canal Istanbul would only benefit a handful people, not general public.

Canal Istanbul Workshop was organized to examine the data and discuss the results on these two documents which do not address scientific concerns that span from cost analysis and financing to its effects on environment, climate and social life. The participating experts and scientists of the workshop discussed the possible effects of the Project in detail on financing, urban planning, transportation, environment, water resources, social structure, national security, earthquakes, cultural heritage and agriculture. This booklet offers the summaries of 16 presentations made in 4 different sessions. Because there are overlapping themes, you may see that some scientists touch upon similar issues. For example, when the participants of the earthquake session, which was followed with curiosity and concern, were discussing the possible mutual effects of Canal Project and an earthquake in Marmara Sea, they inevitably drew the attention on the possible destructive effects of the Project on environment and climate. In this regard, you may see different takes on numerical figures of the same issues in this text. Different takes do not mean inconsistency and they stem from

the ambiguity, silence and obscurity of the Environmental Impact Assessment Report that was approved in haste. On the contrary, the scientists coming from different schools addressed one single truth in the workshop: Once undertaken, the Canal Istanbul Project will bear irreversible environmental destruction in the regions around the Marmara Sea and specifically in Istanbul and the generations to come will pay dearly for that. It will be the citizens who will suffer from its effects, like in any other environmental disaster.

As the disheartening results of this workshop indicate, there will be hundreds of problems on our agenda because of the Project. In this brief introduction I would like to underline three urgent issues that necessitate outright cancellation of the Project: The first one

As the real wages melt down against inflation, the household debts increase tenfold in the last 20 years and unemployment boosts in Turkey, the cost of Canal Istanbul Project may trigger an unprecedented economic crisis in Republican history.

is on its financing. While the Environmental Impact Assessment Report identifies the cost of the Project as 75 Billion Turkish Lira (TL), the Ministry of Transport and Infrastructure discloses it to be 114 Billion TL, and this indicates that a serious analysis on the financial cost of the Project has not been made. There are also discrepancies between the data of two different ministries of the government. Furthermore, the cost

assessment of an economy management that cannot restrain the inflation and exchange rates is far from being reliable. One last point, the most vital issue that is being followed by the public opinion is how the overall cost of the Project will be paid. The cost excess rates in mega projects that have been undertaken are very clear. Even more importantly from the point of financing is the new trend of abrupt and unforeseeable changes in the global finance system. In brief, the conditions of construction-driven growth model that became possible with the credits fleeing from developed countries after 2008 crisis ceased to exist. Moreover, the expectation of "700 billion dollar meltdown" as expressed by the IMF President, Kristalina Georgieva, indicates that the possibility of growth in seasonal credits is quite dim. Launching a gigantic construction project that will take decades under such an environment of uncertainties will render the ongoing economic problems of Turkey much worse. If the credit cannot be secured from the finance and investment markets, citizens of Turkey will be loaded with an unbearable burden of tax. The citizens, who are already fighting with tax increases and facing a possibility of further indirect tax increase because of the debts of private sector in foreign currency, will face an enormous domestic debt. As the real wages

melt down against inflation, the household debts increase tenfold in the last 20 years and unemployment boosts in Turkey, the cost of Canal Istanbul Project may trigger an unprecedented economic crisis in Republican history.

The second vital and urgent matter about the Project pertains to the rapid deterioration that it will bring on the water reservoirs of Istanbul and Thrace. The Project will wipe out the Sazlıdere Dam altogether that has the capacity to provide water for 1.35 million citizens in Istanbul. In the same vein, south-eastern drainage basin of Lake Terkos will disappear and the lake will face the risk of salinization. In case the Lake loses its utility to Istanbul, the water provision of the city will sustain a fatal blow. These two sources provide water

for 6 million people in Istanbul. Furthermore, the new housing projects in the framework of the Project will necessitate an additional demand for water and therefore, the allocation of Lake Büyükçekmece to the Project. It will not be possible to provide for such a demand in a city that is already trying to supply water from Melen River. In case the Project is undertaken, the water system of the city will face the risk of an

immediate breakdown. The last but most important issue is about the precautions for the Istanbul-centred Marmara Earthquake as the scientific studies disclose with proof that it is approaching. Breaking of the fault line under the Marmara Sea will trigger an earthquake which will be at least 7.2 in Richter scale and threaten the lives and properties of hundreds of thousands of people. Turkish Republic should use all its efforts to prepare Istanbul for such an earthquake. Even with the controversial cost figures of the Canal Project, more than 1.5 million houses can be renewed for the earthquake.

Alongside these urgent matters, Canal Istanbul Project would accelerate the climate crisis in Turkey and around the world. It will disperse the environment pollution in Black Sea through the canal and with the urban heat island that it will create it will increase the average temperature not only in Istanbul but also around Turkey.

On the face of all these facts, it is clear that insisting on Canal Istanbul Project constitutes the biggest treason to Istanbul and Turkey. This is why; once again, we call those who came up with this project to common sense and drop it off the agenda never to be mentioned again.

Turkish Republic should use all its efforts to prepare Istanbul for such an earthquake. Even with the controversial cost figures of the Canal Project, more than 1.5 million houses can be renewed for the earthquake.



► Greenpeace
Photography: Caner Özkan

PARTICIPANTS

Including a variety of civil society organizations, professional chambers, representatives of public and private institutions and political parties, academics, students, press and staff members, 2.658 people participated the workshop. The breakdown of the participants is as follows.

253 
EDUCATIONAL INSTITUTION
STUDENT + ACADEMIC

745 
PUBLIC INSTITUTION

120 
PRIVATE SECTOR

80 
PROFESSIONAL CHAMBER

95 
POLITICAL PARTY

18 
CONSULATE

982 
INDIVIDUAL PARTICIPANT

148 
NGO
FOUNDATION + ASSOCIATION +
LABOUR UNION

48 
SPEAKER

123 
PRESS MEMBER

46 
STAFF

PURPOSE AND METHODOLOGY

With its unique geographic position, long history, rich natural resources, and global economic and cultural potential, Istanbul is a prominent city not only for Turkey but also for the world. Being at the crossroads of the East and West, Istanbul is a unique city blended by the cultural heritages of different civilisations. Alongside its strategic location, Istanbul has strong cultural connections and this is why socio-economic developments about the city have far reaching influence at international, regional and local levels in natural, economic, social and spatial dimensions. The values of such a city with a privileged geography historical and cultural heritage and unique natural beauty, have been under negative influence

This workshop aims at opening the grounds to discuss the Project in every aspect from cost analysis to financing, from spatial planning in the context of urban planning, transportation and cultural heritage, from the effects that it will create on environment and climate, from its impact on social life to its legal framework and security dimension, from its risk assessment for earthquake and natural disasters to the participation of citizens to the Project.

because of its exposition to pressure of development, unplanned expansion, enormous investment that are made without participatory methods, and the effects of unexamined socio-economic and environmental policies.

Canal Istanbul Project is yet another enormous investment that would influence Istanbul significantly in every dimension. Undertaking a project that will load a huge burden onto public budget, deepen the effects of climate crisis, create an extensive ecological damage and destroy the agricultural and water resources of the city cannot be accepted.

This workshop is organized by Istanbul Metropolitan Municipality for the purposes of creating a platform of comprehensive discussion for the experts, evaluating its possible effects and creating a venue for Istanbulites to express their opinions. In this regard, this workshop aims at opening the grounds to discuss the Project in every aspect from cost analysis to financing, from spatial planning in the context of urban planning, transportation and cultural heritage, from the effects that it will create on environment and climate, from its impact on social life to its legal framework and security dimension, from its risk assessment for earthquake and natural disasters to the participation of citizens to the Project. Moreover, the potential



effects of the project will be discussed by the participation of scientists and representatives of relevant institutions in a manner open to the public. In this regard, an intensive scientific preparation has been made and the reports of the relevant institutions have been studied in detail. A website has been made for thousands of Istanbulites to express their opinions on the issue. In a simultaneous manner, an active participation was made into the preparation process of Environmental Impact Assessment Report

A participatory method has been followed from the beginning of the workshop and a rather promising effort has been made to ensure the participation of Istanbulites to discussions and objection processes.

by Environment and Urban Ministry and the perspective and objections of Istanbul Metropolitan Municipality were conveyed. Intensive efforts have been spent to disseminate these perspective and objections in public opinion and for the first time in Republican Turkish history, thousands of citizens submitted their objections to the ministry themselves. A participatory

method has been followed from the beginning of the workshop and a rather promising effort has been made to ensure the participation of Istanbulites to discussions and objection processes. ■

OPENING SPEECHES



Gürkan Akgün

Istanbul Metropolitan Municipality,
Head of Development and
Urbanization Department

Ekrem İmamoğlu

Istanbul Metropolitan Municipal Mayor



Canal İstanbul “Past - Present”

Gürkan Akgün

Istanbul Metropolitan Municipality,
Head of Development and
Urbanization Department

Distinguished chairpersons, Parliament members, metropolitan municipal mayor, district municipal mayors, managers of metropolitan municipality and other institutions, valuable scientists who will contribute to our workshop and thousands of people who are with us here in this hall and others who follow us live, I salute you all with love and respect. Today, we will discuss the future of the city of Istanbul which goes back thousands of years and talk about its fate in the most proper way, that is to say, under the guidance of science and reason. We gathered together to discuss Canal Istanbul in all its dimensions and evaluate its potential effects with expert academics, researchers and representatives of relevant institutions and NGOs. Our schedule today is loaded, so without further say, I would like to provide basic information to create a platform for discussions and refresh our memories on how we got to this point in Canal Istanbul Project and what the scope of the project is. Without resorting to commentary, I will try to give you the facts and inform you on what has happened so far.

April 27, 2011 is the date Canal Istanbul Project was shared with public for the first time. It is an important date, because just 2 years after the 1/100.000 scale Environmental Plan that was prepared by hundreds of academics, endorsed by Istanbul Metropolitan City Council and regarded as the Constitution of Istanbul, Canal Istanbul Project was publicized.

I will expand on that later. After the launch of the Canal Istanbul Project, the Ministry of Environment and Urban Planning was established and then, in 2012, law no.6306

on the transformation of the areas under disaster risk was made and the boundaries of reserve construction area surrounding the Canal Istanbul Project were identified. The boundaries then, went through certain revisions and took their current status. In 2014, a new concept was added to the Zoning Law, “the waterways”. What do the waterways stand for? They are artificial waterways constructed by the decisions under the Zoning Law, through which, naval platforms can do transportation. Yes, it stands for Canal Istanbul. With this the Canal entered into the Zoning Law. After 2 years, on May 30, 2016, a critical decision was made. Ministry of Food Agriculture and Livestock approved the non-agricultural usage of agricultural fields in this reserve construction area. After 2 years, an amendment was made on Pasture Fields Law and the collective public ownership of the pasture fields in this area was lifted and TOKİ registered them on it behalf.

Throughout the whole process, we want everyone from scientists to ordinary citizens to contribute and speak their mind. We will develop other venues to this end, as well.

After the changes on the nature of ownership for pasture fields, the Environmental Impact Assessment Report (ÇED) processes continued throughout 2017 and 2018. It slowed down for a while and then gained momentum with protocols being signed between different institutions and development plans being made. It was then submitted to Ministry of Environment

and Urban Planning for approval, yet soon it was withdrawn. A long process took place then. At this point let me share a piece of information that many universities, scientists, other institutions and even the district municipalities do not know. 1/5000 scale zoning plans were prepared and sent to the Ministry of Environment and Urban Planning. On December 23, 2019, ÇED report of Canal Istanbul Project was shared with public and as we got to know later, on the very same day, 1/100.000 scale Environmental Plan was also approved. As you all know, in the past months thousands of people made long lines at the gate of Ministry of Environment and Urban Planning to submit their objections about the ÇED report. As of today, we know that the environmental plans have been published on December 30, 2019. In other words, 1/100.000 scales environmental plans of European Side Construction Reserve Area pertaining to Canal Istanbul and its surrounding have been published as open to the objections of citizens for 30 days.

At a time when the world was caught unprepared for the perils of climate crisis and treasures the clean water resources and look for alternative ways of providing healthy and cheap food for everyone, we are discussing a project that will cross over our agriculture areas, meadows and forestry by earth-moving trucks and give them irreversible damage.

So, what does the Construction Reserve Area stand for? What does the Canal Istanbul affect and how? Let me expand on that a little. As we know, Canal Istanbul Project is basically a waterway that is 400 meters in width and spans 45 kilometers from North to South. Yet Construction Reserve Area covers a broader area that surrounds the Canal. It directly involves

6 districts, 19 neighborhoods and 316 thousand people as resident population. We are talking about 350 kilometer square area, which constitutes 6.5% of surface area of Istanbul. Only 4% of this construction reserve area is residential area as of now. 50% of the remaining area is being actively used in agriculture, while 20% includes meadows, heath land, forestry, lake areas and water basins. Planned landfills are very critical since they involve beaches and sand areas on Black Sea coast. Why am I talking about them? Because at a time when the whole world was caught unprepared for the perils of climate crisis and treasures the clean water resources and look for alternative ways of providing healthy and cheap food for everyone, we are discussing a project that will cross over our agriculture areas, meadows and forestry by earth-moving trucks and give them irreversible damage. I am talking about an excavation of 1.3 billion cubic meters, that is to say, 50 years worth of Istanbul's excavation will be dumped on Black Sea coast. They are talking about a coastal band of 38 kilometers. Let me put it that way: All the coastline from here to Tuzla (the last district of Istanbul on the Anatolian side) will be filled with the earth excavated from the Project area. With such amount of earth, you can cover the municipalities of Güngören, Esenler and Bağcılar with soil of 30 meters high. Alongside these issues, the Canal Istanbul Project will remove Sazlıdere Dam altogether and salinize Lake Terkos. Furthermore, the underground water that feed Lake Terkos will flow into the Canal and then will face the risk of becoming extinct. I am talking about the disappearance of one out of every three glasses of water that we drink in Istanbul. This area is also the habitat for many aquatic animals and bird species.

Today both in the morning and afternoon sessions, the environmental dimensions of the issue will be discussed. Since it is a matter of extreme importance we will have it in both sessions. As for now I would like to suffice with the titles. I want to talk about cultural heritage. The corridor of Canal Istanbul Project and its area of influence include natural and archaeological

protected areas. Discovery of Bathonea Ancient City and Yarımburgaz Caves in the lagoon basin of Küçükçekmece, which dates back 6500 years were regarded as prominent archaeological discoveries in 2009. Internal and external beaches of Küçükçekmece, Soğuksu grade 1 natural site area, Rregion grade 1 and 2 archaeological site areas, they all face extinction now. There is one more issue that I want to share with you on that matter. There was a meeting to evaluate the ÇED report and we participated in. The Report mentions particular areas of historical and cultural heritage that must be protected. Yet, when we asked them how they will protect these heritage sites, the presenters answered that they will move the heritage sites as they moved the Hasankeyf archeological site before the construction of a dam in the same place. The presenters assumed that case was a good example. A similar answer was given about the agricultural fields. The agricultural fields that will disappear can be carried elsewhere, they said. They had already been mentioned in the Report by the way.

There is only one sentence for such an important decision in the Report about the foreseen population of such a vast area: "The population growth that will take place with the Project is envisaged to be 500 thousand." There is no such thing as calculation or any sort of analysis, it is just "envisaged" to be that way.

We also need to focus on the approved and publicized 1/100.000 scale environmental plan that surrounds the Canal. What does this plan tell us? The yellow regions that you see on the screen were zoned for construction. The areas with natural resources that I just mentioned have been zoned with this plan. It may look small on the screen but we are talking about 84 kilometer square area. With this plan, an area that is 3.5 times larger than an average

district of Istanbul, like Bağcılar, has been zoned for construction. There is only one sentence for such an important decision in the Report about the foreseen population of such a vast area: "The population growth that will take place with the Project is envisaged to be 500 thousand." There is no such thing as calculation or any sort of analysis, it is just "envisaged" to be that way.

Container ports are planned on the North and South sides of the Canal. Yet, no analysis or study has been done on how to get the loads to these ports. Istanbul Metropolitan Municipality has analyses conducted in the past years on this issue. They had also conducted sector meetings which disclosed that this area is wrong in logistical terms. The meeting elaborated that any port in this part of Black Sea could not work properly, yet the Report does not mention that either. I will leave these debates to the session on planning.

Another important session for today is on planning and urbanization. I would like to make a brief comparison between the approved environmental plan of 2009 and the current one that went through changes. The 2009 plan is on the left side of the screen and the current one is on the right side. The one on the left is still approved and valid for the whole city of Istanbul. The only change in the plan was made on the area of the Canal. In this region, you will see 1.200.000 additional population, 200 thousand trees to be cut, 150 million meter square meadow and agricultural area to be lost, the protected sites to disappear, 33 million cubic meter clean water to be lost and 3.4 million new travels that will affect the life in Istanbul. Furthermore, the burden of transportation, air pollution, simultaneous increase of temperature and traffic stress; all will have their effects on climate crisis. Comparison of these two plans indicates all that very clearly. Let me read the keystone decisions of both plans. These are unchanging vital decisions. I will start with some key expressions:

► Decisions of vertical settlement that will make Istanbul expand Northbound and destroy the natural and historical

structure of the city, cause problems in transportation and settlement must be avoided.

- ▶ Meadows and agricultural fields must be prevented from being used for other purposes.
- ▶ The fields that are used must respond to the demands of the society for healthy nutrition quality, quantity, economy, ecology and societal terms.
- ▶ For a better preservation, the forests of Istanbul must be given the status of protection forest.
- ▶ The forestry must be protected in all its types, priority given to heath land and shrubbery that prevent erosion and promotes biodiversity.
- ▶ Sustainability of vegetation in the empty fields must be secured.
- ▶ Measures against the urban development pressure in clean water basins must be taken.
- ▶ Coastal zones must be protected from usages that threaten them.
- ▶ The natural population boundary of Istanbul, 16 million must not be exceeded.

It's not me who is saying all these, it is the Report itself. You can find it online easily and see the details. More importantly, the report is still in force. When we ask, "What will be the cost of the Canal Istanbul?" we come across 100 billion TL budget without any serious income-expense analysis or feasibility. 8 bridges to be built, additional cost of transportation and infrastructure will be waiting for us with the Project. Once the cost of subway investments is added into account we will have an unforeseeable budget for the Canal. They mention these figures very easily, broadcast animations of marinas and skyscrapers and publish real estate commercials on YouTube, yet the real life in reserve construction area is far from these. Since this area was declared as reserve construction area,

in 2012 when the zoning authority was transferred to the ministry, people have been waiting for plans in Altınşehir, Güvercintepe, Şahintepe, Tahtakale. These are the neighbourhoods with low income and poor infrastructure. People there, have other problems, priorities and needs. In these neighbourhoods, classes have 60-65 students and children still attend to mobile teaching. So in such a neighbourhood such a plan is being made rather than agriculture and husbandry. We have more urgent expenses to be made for the needs of the people and needs to be dealt with.

In these neighbourhoods, classes have 60-65 students and children still attend to mobile teaching. So in such a neighbourhood such a plan is being made rather than agriculture and husbandry. We have more urgent expenses to be made for the needs of the people and needs to be dealt with.

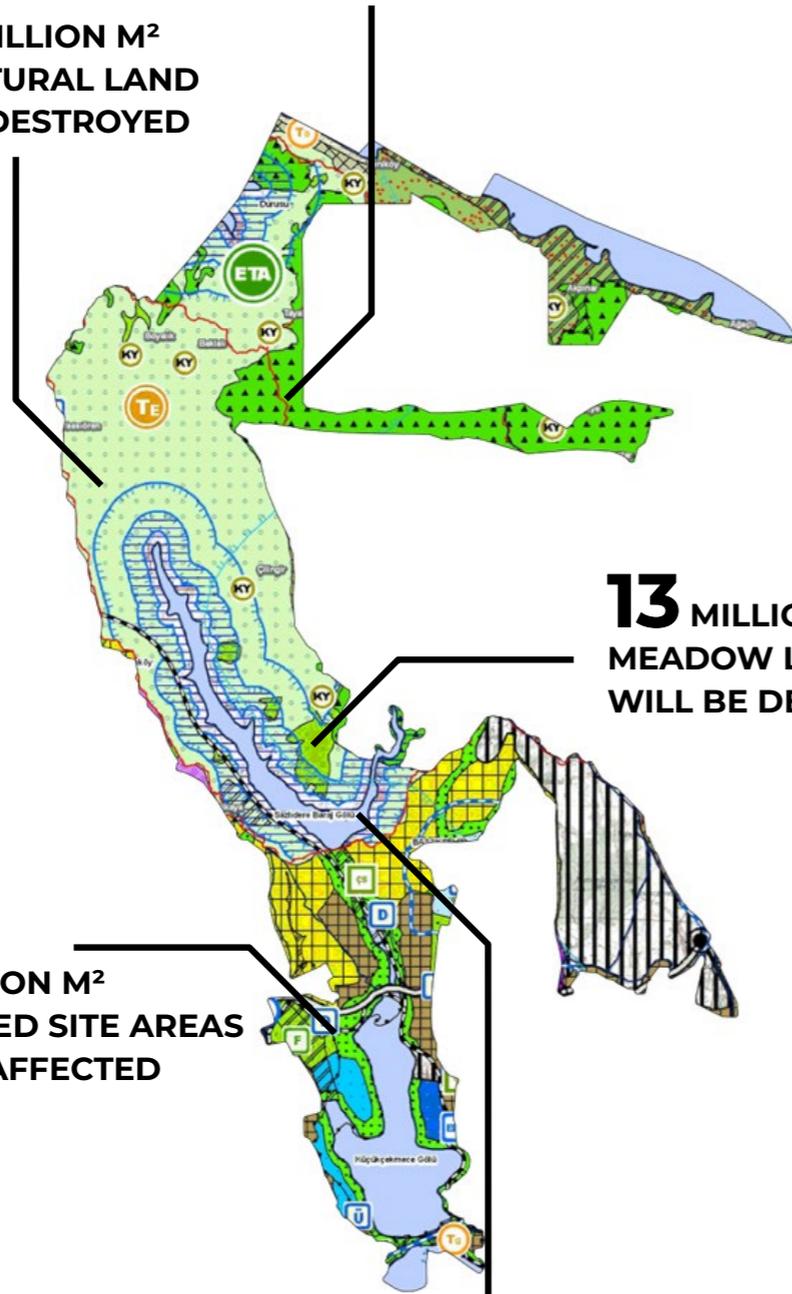
Today we will discuss Canal Istanbul with scientists in detail in all its dimensions. In 8 sessions, we will have 40 valuable speakers and thousands of participants we will examine the Project in terms of economy, planning, law, environment, urbanization, seismicity and many others. We aim at a democratic debate guided by the correct data. Therefore, we will have differences of opinion. In this regard, we invited all the relevant public institutions and investment companies. We have put together the program of the Workshop to discuss the issue with correct data and scientific mind. Throughout the day, we will have "Speak Your Opinion" desk outside the hall and we will have interviews there. The website, kanal.istanbul is online and we also have a "Speak Your Mind" function there. So, we will keep receiving the opinions of Istanbulites after the Workshop as well. We have many participants and limited time, yet we will organize a forum in the

afternoon for which, we will have another desk outside. After the registrations at the desks we will get your opinions as much as we possibly can. Of course this process will not be exhausted by this workshop. Throughout the whole process, we want everyone from scientists to ordinary citizens to contribute and speak their mind. We will develop other venues to this end as well.

As I end my words, I would like to express my gratitude to Ekrem İmamoğlu, Istanbul municipal mayor, that he paved the way for science, reason, conscience and participation in the process of Canal Istanbul Project. Looking at you from where I stand now, I would like to thank you that you grew our hope for Istanbul. Welcome. I wish a fruitful workshop for Istanbul and the whole country. I embrace you all with love and respect. Thank you. ■

200 THOUSAND
TREES WILL BE CUT

136 MILLION M²
AGRICULTURAL LAND
WILL BE DESTROYED

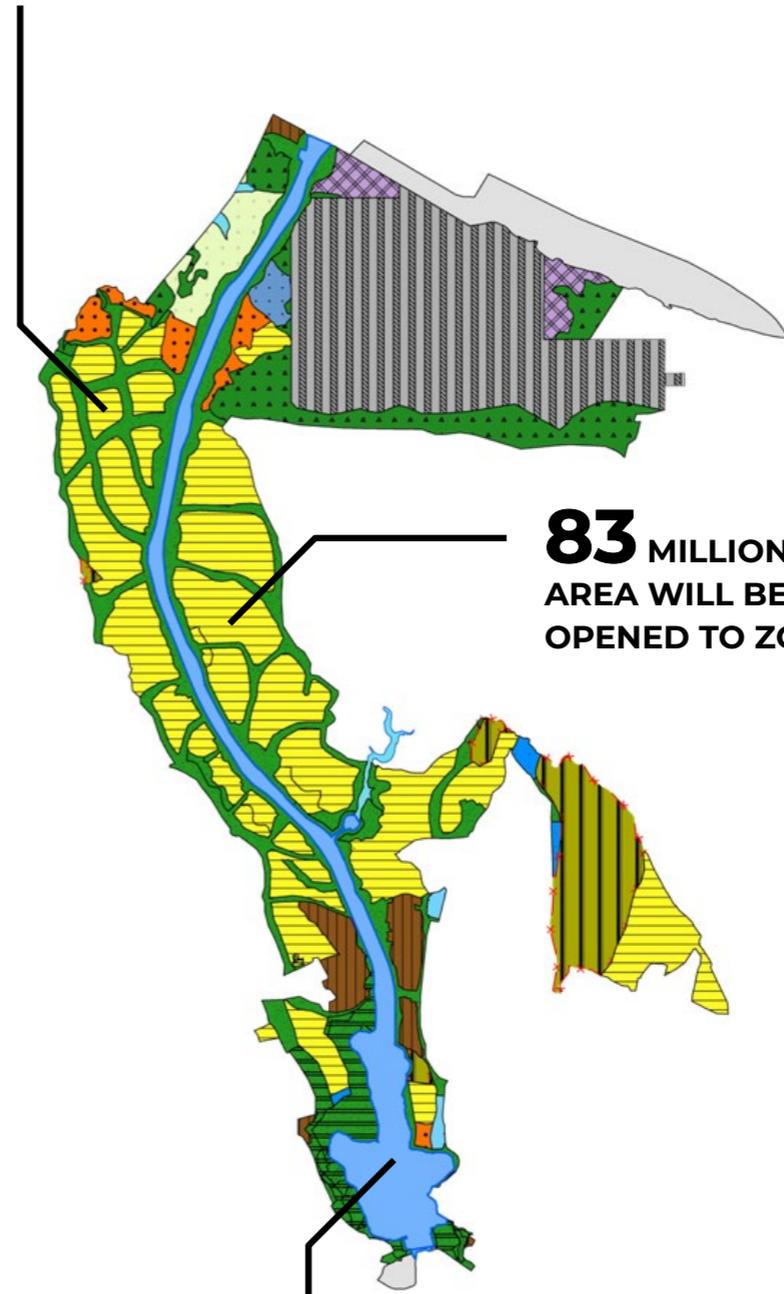


13 MILLION M²
MEADOW LAND
WILL BE DESTROYED

17 MILLION M²
PROTECTED SITE AREAS
WILL BE AFFECTED

33 MILLION M³ / YEAR
WATER LOSS WILL TAKE PLACE

1.2 MILLION
NEW POPULATION
WILL BE ADDED



83 MILLION M²
AREA WILL BE
OPENED TO ZONING

3.4 MILLION
NEW TRIPS WILL BE MADE



We gathered together to listen to what the scientists have to say. As the citizens of a country with serious problems, we will see how correct or risky this Project is and whether it is worth to take the risks in this workshop. Neither the attitude we exhibit nor the ideas that we share are political. They are most certainly vital and humane.

Ekrem İmamoğlu

Istanbul Metropolitan Municipality Mayor

Distinguished chairpersons, parliament members, valuable participant of political parties, I salute you with love and respect. It is Working Journalists Day, I salute you all, dear press members and wish you successful and free days and years in which you will enjoy your rights. I also present my respect to scientists, the real heroes of the day, and to the ladies and gentlemen who attend the Workshop today and my fellow Istanbulites who follow the event on social media and other venues. Welcome to the Canal Istanbul Workshop that we organize as Istanbul Metropolitan Municipality.

Today, we have gathered together for one of the most vital issues of our city. We have gathered together to listen, discuss with the expert scientists and understand an issue that pertains to the future of this great city in its essence. This is an issue on which no step should be taken without discussion and certainty. So valuable and unique of a city Istanbul is, so that any single act, any blow of the spade has to be consulted with the people of Istanbul. Canal Istanbul will change the geography of Istanbul. We are talking about a project that will change the natural and urban life in every dimension in significant ways. Those who come up with the Project have the burden to explain to the public why it is of necessity and convince them. I would like to underline here that Canal Istanbul Project is like a major and risky surgery that no one would want to go through unless it is totally necessary. And it is totally wrong one. We are talking about a surgery that will chop off the city and give fundamental damage to its vital systems. Some parts of the city will be paralyzed and some others handicapped. The people who push the

city to such a risky and fatal surgery cannot say; "This surgery will be done regardless of what you say!" Those who have fixed ideas on this surgery will have to explain us why we have to go through it. We all have the duty to know why Istanbul will be chopped off. We have to be convinced with 16 million Istanbulites, even 82 million Turkish citizens. All of us, we have to learn everything and in detail on the risks of this major surgery. First we will learn and then we can make a collective decision all together.

This can only go through a healthy process of learning and consideration. My fellow Istanbulites, this workshop aims at disclosing the risks of Canal Istanbul, this stabbing of a knife onto the heart of the city, in a scientific manner. Some risks could be low, some high and some could be vital. We will listen to what the science and scientists say. We will try to understand, learn and question. We will all know the risks of Canal Istanbul and ask this question to ourselves: Is it worth all these risks? Is it really a necessity? Is what they are telling us correct? While the city has many other vital problems, is it really the time for such a project?

Dear guests, my fellow Istanbulites. I have said that many times before and I want to say it once again. Our stance on Canal Istanbul is not political, it is of vital. Let me repeat, our attitude on Canal Istanbul is never a political one but it is of vital, life sustaining. Because this project poses one of the biggest risks that this city had in its entire history. Those who bring the Project onto the agenda and say "This project will be done regardless of what you say!" have

two basic arguments. The first one is the possible risks stemming from the passage of the ships through the Bosphorus, the second is that it will bring revenue to Turkey. These are the two basic arguments. Yes, we know that it is an important issue to secure the safe passage of the ships through the Bosphorus, especially the ones that carry dangerous cargo. We have to be very sensitive about that with all our institutions. We will stand by our government and give it full support in whatever steps it takes to provide security in the Bosphorus. We by all means have to cooperate on that issue. No one should have a doubt about that. But, just moving the passageway of ships with dangerous cargo from some place to some other, does not provide security. There is no such thing. On top of that, we all know that Canal Istanbul will not present an alternative to those ships that are big in width and depth. Again, we know that the ships cannot be forced to use the Canal rather than Bosphorus. No one should take us for kids. Whichever waterway they use, all the ships have to follow the strict safety and security regulations of Turkey. What matters is building the infrastructure of that.

The owners of the Project claim that it will bring immense revenue to Turkey. It is not even clear where the money for the Project will come from, and how it will be financed and by whom?

Distinguished participants, another important issue is decreasing Istanbul's function especially in petroleum transportation. We agree. But changing the waterway for the ships to pass through will not ensure that. What must be done -let me underline here that they made us forget that- building other alternatives like Baku-Ceyhan petroleum pipelines. Pushing all these alternatives to aside and saying that "Canal Istanbul is of necessity for the security of Istanbul" is neither correct, nor rational or reasonable. On the contrary it is turning the issue into

a fait accompli and creating its pretexts. The second point is, you all hear that the owners of the Project claim that it will bring immense revenue to Turkey. What do they base this claim on? Trust me, I have tried to understand but came to a conclusion that it is not possible. It is not even clear where the money for the Project will come from, and how it will be financed and by whom? Let me tell you something: it is not even clear what they will do. We have researched into the issue around the clock as the Metropolitan Municipality. You see, they are talking about a different model every other day. We have been talking about the water issue of Istanbul for the last two days. Valuable scientists have made important presentations in the last two days, discussed the water reservoirs of Istanbul and its future. Professor Derin Orhon told a beautiful joke there. With all due respect for the chairpersons of parties and our guests, let me tell you that joke. Nasreddin Hodja writes a letter one day gives the envelope to a kid and tells him to take it to the address. The kid looks at the envelopes and tells Hodja that there is no address on the envelope. Hodja tells the kid; no problem, the envelope is empty anyway. This, unfortunately is what this process tells me.

Obvioulsy, dear Istanbulites, the owners of the Project do not have the approach of a serious investor on the economic side of the issue. Here is what they say; we will dig a canal here, and ask for money whoever passes through it. Then we construct huge buildings around the canal and make money from that as well. Well, this is not a suitable approach to this day and age. This is not a serious economic approach and there is not much to talk about there. This is not a reasonable approach. This approach doesn't comply with international agreements either. This model does not involve production and high technology, it does not have added value or brand creation. It is built upon the soil, concrete and rent. You can't make money with these models in this day and age. The world has changed. You can't create an economic recovery or employment either. This is what the reports are saying. Turkey has been

trying such methods in recent years; we have been through this altogether. We see the painful levels of unemployment and poverty.

We are ready and keen to work with the government in every field; we have no question marks on that. We have a single precondition; no one in this country, no one in this city should say, "I know it, so I do it as I please." No one should lift up one's voice and reprimand people here. This is the only precondition we have.

It would bring neither security nor a good economy. There is not concrete reason for the intermittent appearance of Canal Istanbul on the country's agenda. We have seen it all together that those who declared the Project with a big noise before the 2011 elections have made no mention of it in 2015 general election and 2019 local elections. They seem to be mobilizing the issue now to get us face a fait accompli. Obviously they are trying to create a political campaign out of it. This country does not need the type of rollercoaster politics built on this Project that manifests itself through daily politics, personalized commercial networks and rent relationships. This country does not even have a second to lose.

Distinguished guests, we have so important and vital problems that we are not obliged to this Project. Neither the city of Istanbul is obliged to a Project like that. Istanbul is rather obliged to re-start the investments that came to halt, invest much more on subway transportation and other modes of urban transportation, and has to tackle the issue of transportation like in any other civilized metropolitan cities. Istanbul is obliged to protect its water reservoirs, clean water reservoirs and increase them further. In the same fashion, Istanbul is obliged to protect the last remaining green

areas it has, develop them and create new ones. Istanbul is obliged to provide opportunities to those children who do not have enough to eat and drink, and bring them pre-school services. Istanbul is obliged to offer education to its youth and provide them with scholarships and jobs. Istanbul is obliged to offer women opportunities to participate in social life in a safe and peaceful manner. Istanbul has to make the lives of the poor, unemployed and retired people. Let me put it very clearly; we see the fulfilment of these necessities, preparation for the seismic risks and the issue of urban transformation as our priorities. This is what we work for and this is where we are headed. Of course, these issues also fall under the responsibility of the central government. We are ready and keen to work with the government in every field; we have no question marks on that. We have a single precondition; no one in this country, no one in this city should say, "I know it, so I do it as I please." This is the only precondition we have. No one should lift up one's voice and reprimand people here. Yes, this is the only precondition we have. We have the things that I mention in our heart, in our traditions, in our land. It would suffice to listen to Rumi. Let's remember what Rumi said: "Raise your words not your voice. It is the rain that grows the flowers not the thunder." This is why we should listen to the experts, scientists and the people. We should all be keen and enthusiastic to find the common wisdom and put it into practice. This workshop is a product of such an effort. This workshop is the product of an effort to reach common wisdom and collective decision. This workshop is the product of an effort to protect this great city for the next generations. This workshop is the product of asking for people's opinion rather than imposing opinions on them, ruling them. This is why this workshop is of utmost importance.

Dear guests, we will share all the results that will come out of this workshop with the people and those who carry the burden of making decisions on behalf of people. In this regard we are carrying out our responsibility to this great city, its values

and 16 million citizens at the highest level. We took initiative while no one spoke; no one was even able to discuss the issue while the Project was being pushed forward in hurry-scurry. As Istanbul Metropolitan Municipality, we took this initiative to inform our citizens. We invited the relevant state institutions to act responsibly and created platforms for scientists to speak. First we organized the symposium and now this workshop. We will keep up the legal dimension of our struggle from now on. We will do that and never back down from our responsibilities.

Please get your children by your side and look into their eyes. While you do that I am asking you this question: Do they really need this project, this Canal? Is this the best thing to do for their future? Do they expect a more liveable and civilized and less problematic city from those who run this city and the country or a risky surgery to be done?

Here and now, I would like to address all the Istanbulites and each and every citizen of Turkey. Please get your children by your side and look into their eyes. While you do that I am asking you this question: Do they really need this project, this Canal? Is this the best thing to do for their future? Do they expect a more liveable and civilized and less problematic city from those who run this city and the country or a risky surgery to be done? We are trustees and we will pass this city onto them. The main issue for us, the people who are with us now and the whole country, is this. This is a vital issue altogether and discussing the risks of Canal Istanbul is nothing political, nothing about this discussion is political.

Distinguished guests, as I end my words, I would like to express my gratitude to all the experts who take responsibility by coming

here and expressing their opinions, all the delegates, participants and everyone else who enlighten the society on the issue, all the political parties, their participants, specifically the chairpersons of the parties, the representatives of NGOs and academics. This appreciation is not just on behalf of 16 million Istanbulites but also for the future generations, for our children and grandchildren. Thank you very much. I salute you with love and respect. ■



SESSIONS

The workshop that hosted 40 speakers in total will have two separate sessions, one in the morning and the other in the afternoon. In both sessions, the speakers made their presentations in simultaneous meetings. The presentations that were made under four separate titles were compiled together by the rapporteurs. At the end of all sessions, the Head of Development and Urbanization Department made a presentation entitled "Moderator presentations and Evaluation" that summarized the key findings during the discussions. The issues that were touched upon in this session are placed under the title of "Session Evaluation" at the end of each session.



- Sessions 1
- 1.1 Political Economy of Canal Istanbul**
 - 1.2 Spatial Planning, Urbanism and Transportation**
 - 1.3 Environmental Dimension, Water and Ecology**
 - 1.4 Social Dimension and Participation**
- Sessions 2
- 2.1 Legal Framework and Security**
 - 2.2 Disaster Risk and Seismicity**
 - 2.3 Spatial Planning, Urban Development and Cultural Heritage**
 - 2.4 Environmental Dimension: Agriculture, Climate and Ecology**

Session 1

Session 1.1	Session 1.2	Session 1.3	Session 1.4
Political Economy Of Canal Istanbul	Spatial Planning, Urbanism and Transportation	Environmental Dimension, Water and Ecology	Social Dimension and Participation
Moderator:	Moderator:	Moderator:	Moderator:
Yiğit Oğuz Duman Istanbul Metropolitan Municipality, Advisor of the Mayor	İbrahim Orhan Demir Istanbul Metropolitan Municipality, Deputy General Secretary	Prof. Dr. Yasin Çağatay Seçkin Istanbul Metropolitan Municipality, Head of Department of Parks, Gardens and Green Areas	Mahir Polat Istanbul Metropolitan Municipality, Head of Department of Cultural Assets
Speakers:	Speakers:	Speakers:	Speakers:
Çiğdem Toker Journalist and Author	Prof. Dr. Haluk Gerçek İTÜ Retired Lecturer, Transportation Expert	Assoc. Prof. Dr. Ahsen Yüksek İstanbul University, Department of Marine Sciences and Management	Assoc. Prof. Dr. Ayfer Bartu Candan Bosphorus University, Department of Sociology
Prof. Dr. Fikret Adaman Bosphorus University, Department of Economics	Prof. Dr. Ahmet Vefik Alp Emeritus Professor, Certified Engineer Architect, Urban Scientist	Prof. Dr. Cemal Saydam Hacettepe University, Department of Environmental Engineering	Bekir Ağırır KONDA Research and Consultancy General Director
Prof. Dr. Haluk Levent Bilgi University, Department of Business Administration	Prof. Dr. Nuran Zeren Gülersoy Işık University, Faculty of Architecture and Design	Prof. Dr. Derin Orhon Near East University, Faculty of Construction and Environmental Engineering	Prof. Dr. İhsan Bilgin İstanbul Bilgi University, Faculty of Architecture
Prof. Dr. Uğur Emek Başkent University, Department of Economics	Assoc. Prof. Dr. Pelin Pınar Giritlioğlu TMMOB, Chamber of City Planners, Istanbul Branch	Prof. Dr. Doğanay Tolunay Istanbul University, Cerrahpaşa Faculty of Forest	Prof. Dr. Murat Cemal Yalçınan MSGSU, Department of Urban and Regional Planning
	Prof. Dr. Şevkiye Şence Türk İTÜ, Department of Urban and Regional Planning	Dr. Sedat Kalem World Wildlife Foundation(WWF) Turkey Protection Director	
		Selahattin Beyaz TMMOB, Chamber of Environmental Engineers Istanbul Branch	

1.1 Political Economy of Canal Istanbul

In the session "Political Economy of Canal Istanbul" moderated by Istanbul Metropolitan Municipality Advisor of the Mayor Yiğit Oğuz Duman, Canal Istanbul Project is addressed in economic and political terms.



Çiğdem Toker
Journalist and Author

The fact that the project investment cost is 75 billion TL in the official document and 118 billion TL in the report of the Ministry of Transport, Maritime Affairs, and Communications indicates that the cost account is uncertain and contradictory.

Canal Istanbul Project is the most controversial project in the history of the Republic. The task of journalists is to better understand and explain this project, which is dictated to the public with the money of the public. The issue needs to be approached by asking questions about income inequality and what and how it is financed. It is necessary to highlight the following points:

- The differences in the project investment cost in various sources (75 billion TL in the official document, 118 billion TL in the report of the Ministry of Transport, Maritime Affairs and Communications) indicate that the cost calculation is uncertain and contradictory and creates suspicion about the gravity of the work.

- It is another severe uncertainty to state that if it cannot be conducted with the build-operate-transfer model, it will be carried out from the national budget. If it will be conducted with build-operate-transfer model, the question arises whether the tender will be held and according to which method the tender will be held. The fact that construction of the national budget suggests that it may be 21 / b, which is open to competition, summarized as an invited tender rather than a legal tender.

- Since the operating income of the project within the state is considered to be lower

than its cost, it is also considered to be made with the build-rent-transfer model instead of the build-operate-transfer model. In the process of the search for investors, advantages such as tax reduction in fuel are planned.

- Taking into account that a budget deficit of 140 billion TL is envisaged for 2020, we confront with a project with an investment cost as much as a budget deficit, which corresponds to 11% of our total budget.

Despite all objections, the main purpose of imposing such mega projects is to sustain the markets through the subcontractor system. The project shows us that construction companies are also actors in the construction of hegemony. Under no circumstances, should Istanbul be handed over to construction companies.



Prof. Dr. Fikret Adaman
Bosphorus University,
Department of Economics

As an environmental economist, while examining the project, my main criterion is cost-benefit analysis. As part of this analysis, we observe that important topic such as the following are missing:

- Direct and indirect returns,
- Direct and indirect costs,
- Distribution of benefits and costs by years,
- A discount rate to express the returns and costs that will occur during the lifetime of the project with today's value,
- Project life

It is stating the obvious that in determining the parameters under these titles, detailed analyzes should be made and determination of the parameters should be based on the detailed analysis. For instance, due to the project, the decrease in the bird population may negatively affect the agriculture in the

region, this situation may not only change the ecological, but also the socio-economic life in the region, and the importance of possible synergies such as these should not be ignored. In addition, lower-upper limits can be set in estimates of some parameters. If such a path is followed, simulation should be made according to the lowest and highest values of the accounts. It is necessary to consider what else can be done with the resources to be spent on a specific project. This is even more important when it comes to projects with large budgets, such as Canal Istanbul.

But this kind of analysis - just like Canal Istanbul Project - reveals a complicated situation for two reasons. The first is that uncertainties are in effect (for example, there are difficulties in attributing the possibility of how some effects occur in what form, intensity and time period). Secondly, there is difficulty of expressing some benefits and costs in monetary terms, for example, if some costs are on coastal ecology or human health, they cannot be easily predicted. In addition, a situation such as some costs being irreversible (for example, in the case replacement of habitat destruction which will result in the loss of biodiversity, that loss of biodiversity will not be achieved) brings additional challenges in calculating costs. The project can be abandoned by applying the "prudence principle" in the presence of such situations and especially in the presence of a significant vital meaning of this presence. We know little about the feasibility of the

We confront with a mega project in terms of its budget and its effects. Therefore, the Canal Istanbul Project should not be rushed.

project. On the other hand, despite the existence of a comprehensive EIA Report, the fact that no analysis has been made on the costing of possible impacts indicates that there is no sound general assessment. Scientific studies reach uncertain conclusions in some cases and even in most cases. For this reason, the project should be evaluated in more participatory ways, not limited to the scientific community only. We do not know

many parameters in question. Assumptions and models have not been adequately studied and discussed, both in the scientific community and in the public. There are unpredictable risks and the project has the potential to bear significant irreversible risks. We are faced with a mega project in terms of its budget and its effects. Therefore, the Canal Istanbul Project should not be rushed.



Prof. Dr. Haluk Levent
Bilgi University, Department of
Business Administration

The most important issue is that there is no significant feasibility and therefore, it is not possible to make an economic evaluation / any evaluation. It is an unacceptable shortcoming that there is no feasibility study while discussing the spending of such a large amount of public resources. If this project was to be constructed, the strait traffic should have been increasing gradually, but the number of ships passing through the strait has been decreasing in the last decade. It is also unclear whether there is a possibility of an increase and how possible risks can be reduced.

There is no clarity about what it would bring to the ships passing through the canal instead of the Bosphorus. The argument that the waiting time will be shortened cannot be defended clearly. The EIA Report states that it will create an employment of 10 thousand jobs and its cost will be \$ 10 billion, employment cost per capita is up to 1 million dollars. This calculation is unrealistic and this money should be utilized more effectively.

One of the main problems of our country is the economic development differences between regions. Canal Istanbul Project will increase the density of Istanbul and

deepen the problem in terms of population and economic activities. On the other hand, claims such as the potential profitability and the protection of the straits, which are put as the main justifications for the construction of the canal, are disproven by the experts who provided evidence that these claims are wrong. The reason for insisting on the construction of Canal Istanbul seems to be creating a new source of (unearned) rent. The confiscation of (unearned) rent through public is a common method in Turkey and many countries and constitutes the background of authoritarian populist economic power. The growth model predominant in Turkey for a long time is based on the monetization of (unearned) rent and as a result, has led to a deepening of social problems such as unemployment, income inequality. Realization of (unearned) rent production mainly through the construction sector has not only caused much economic and social damage but also created irreversible ecological problems. In today's world, where climate destruction continues at full speed, it may be possible to limit the negative effects of environmental damage and regional concentration to some extent by applying taxes of up to 80-85% to income increases obtained from publicly generated reconstruction / construction rent, as in the developed capitalist countries. In summary, the Canal Istanbul Project is the first stage of a ponzi schemes aimed at producing rent.



Prof. Dr. Uğur Emek
Başkent University,
Department of Economics

Regarding the project cycle management framework, planning about the need for and feasibility stages of Canal Istanbul Project are highly controversial. Tender and financing issues contain serious ambiguities. Therefore,

it can be seen as a project proposal, not a project per se. It is understood that demand estimation is not made in the specified need, because, the number of ships passing through the Bosphorus and carrying dangerous cargo is gradually decreasing. Indicators for the absence of a significant increasing trend in the Baltic Dry Cargo index and the decrease in the number of shipbuilding indicate that ship demand in world trade is not increasing.

By way of using the Gold Franc right granted to Turkey by the Montreux Convention as well as by increasing the passage prices we can more easily decrease the ship traffic and increase our income.

In many mega projects such as Gebze-Izmit Highway Project, Panama Canal and Suez Canal, there have been great cost overruns. Official organizations make different estimates regarding the cost of Canal Istanbul. Even the lowest cost expressed corresponds to an important share in GDP. This project is prepared with the logic of "make it up as you go along" and these costs are only wishful thinking.

If the most pertinent justification of Canal Istanbul is the increasing number of ship traffic over the Bosphorus, by way of using the Gold Franc right granted to Turkey by the Montreux Convention as well as by increasing the passage prices we can more easily decrease the ship traffic and increase our income.

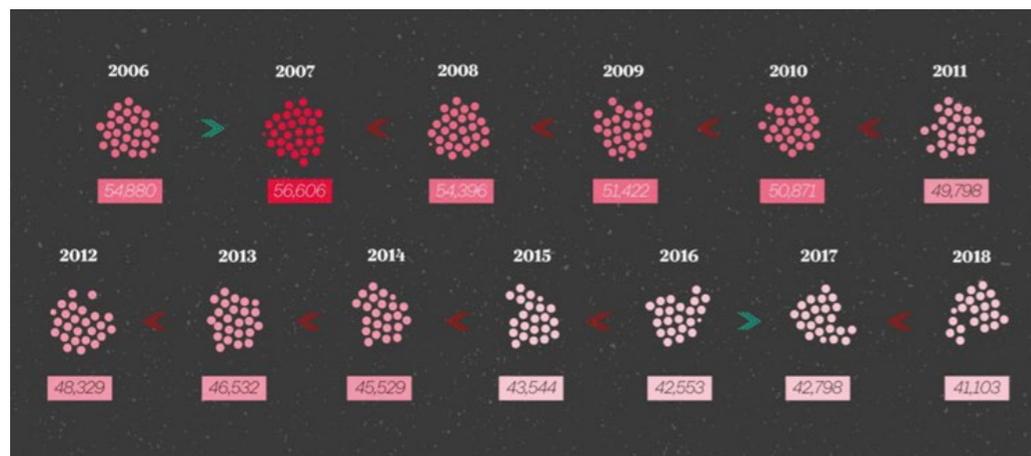
Considering the Istanbul Airport and the new regions opening to the settlement, it is possible to say that the Canal Istanbul proposal is an integrated rent project. The financing of such a rent project with the taxes of taxpayers living in other regions of Anatolia such as Tekirdağ, Adana, Ankara, İzmir, Erzurum, Van and Trabzon will also seriously disrupt the income distribution among the generations in favor of the beneficiaries of this rent. Due to the debt burden that will be imposed on future generations, the income distribution will deteriorate once again against the youth. ■

Summary

In the session “Political Economy of Canal Istanbul” moderated by Istanbul Metropolitan Municipality Advisor of the Mayor Yiğit Oğuz Duman, it is emphasized that “project contains many uncertainties and inconsistencies” and the following statements are made:

- ▶ The investment cost of the project is differently stated in different documents and uncertainties regarding the tender process indicate that the issue is not taken seriously enough.
- ▶ Cost-benefit analysis, risks, and projections have not been adequately studied.
- ▶ Addressing environmental and social impacts in terms of economic costs is also controversial.
- ▶ The project cost is expected to exceed the announced figures to reach up to \$ 60 billion.
- ▶ The money to be spent on the project can be used very effectively in solving the priority problems of our country such as unemployment and regional inequality

NUMBER OF SHIPS PASSING THROUGH BOSPHORUS PER YEAR



Each “●” Symbol represents 2000 ships.

▶ Data visualization: Teyit.org
Resource: the Ministry of Transport and Infrastructure

1.2 Spatial Planning, Urbanism and Transportation

In the session "Spatial Planning, Urbanism and Transportation" moderated by Istanbul Metropolitan Municipality Deputy General Secretary Ibrahim Orhan Demir, Canal Istanbul is addressed in terms of urbanism and transportation.



Prof. Dr. Haluk Gerçek
İTÜ Retired Lecturer, Transportation Expert

The purpose of Canal Istanbul Project in the EIA Report is described as creating an alternative passage route to the Bosphorus to reduce the pressure and threats on the city due to "the increase in ship traffic, the increase in ship sizes as a result of technological developments and the increase of ship crossings (tanker) that carry fuel and other dangerous / toxic substances." So the first question we have to ask is this: "Is the ship traffic in the Bosphorus really increasing?"

Ship traffic in the Bosphorus has been decreasing since 2007. Annual ship traffic decreased from 56.606 in 2007 to 41.103 in 2018. Tankers account for 20% of ship traffic. The main reasons for the decrease in ship traffic are the decrease in oil reserves, Russia's shift of oil exports to the Baltic Sea ports, the formation of new passageways in the Arctic Sea with the melting of glaciers in the north, pipeline projects, and the ability of ships growing larger and carrying more cargo. Therefore, there is no scientific basis for the projection, which envisages the ship traffic to reach 86 thousand levels in 2071 as stated in the EIA Report. Ship accidents in the Bosphorus are also decreasing. The number of accidents, which was 340 in the 1982-1993 period decreased to 266 in the 1994-2003 period and to 281 in the 2004-2018 period. Then we need to address the engineering dimensions of Canal Istanbul and the features of the design ship. First of all, the depth of the canal is 20.75 meters, the base width is minimum 275 meters, and the water surface width is minimum 360 meters. Therefore, ships with a draft survey of 17 meters can pass through the canal, but as the ship speeds up, a collapse will occur in the front of the ship. Especially when travelling from the Black Sea to Marmara, the ships will

accelerate with the current and the risk of placing on the ground of the canal will arise due to this collapse in question. On the other hand, cargo ships with a draft survey of 18-19 meters cannot pass through the canal. According to the EIA Report, 1.1 billion m³ of excavation will be carried out for Canal Istanbul. With the material from this excavation, a 38 kilometre-long filling area is planned to be constructed in the Black Sea. The actual amount of excavation will be much more than this figure. When the bulking coefficient is taken as 1.40, the amount of material to be transported is calculated as 2.4 billion m³.

Within the scope of the project, transportation structures such as container ports, logistics centre and marina are planned. In addition, 8 bridge crossings, and 3 deep subway crossings are envisaged, one being a railroad crossing. The dimensions of four of these bridges are about the Bosphorus Bridge.

The depth of the canal will be 20.75 meters. Therefore, it is technically impossible for ships with a draft survey higher than 17 meters to pass through the canal. Therefore, ships that cannot pass through the Bosphorus cannot pass through the canal.

The total cost of the project is 21.06 billion USD, and the revenue to be obtained from real estate investments to be made as a result of the land development in the project area is around 10.5 billion. In the light of all these data, it is easy to say that the Canal Istanbul Project is not transportation or logistics project, but a real estate project for the development of areas that have not yet been built.



Prof. Dr. Ahmet Vefik Alp
Emeritus Professor,
Certified Engineer Architect,
Urban Scientist

I was against the project since the first day. The Canal Istanbul Project does not have feasibility and rentability, bringing additional burdens to the already burdened Istanbul. The canal will convert the city to an “Ecumenopolis”; in other words to a suffering and nightmare city, where water, green space, and air are drained. It is obvious that it will further destruct the ecological balance of Istanbul. In summary, I am of the opinion that this adventure will damage Istanbul. Every project is created so as to meet a need, but there is no need for such a canal in Istanbul. It is also not correct to compare this initiative with the Suez and Panama Canals, which were built to significantly shorten the sea routes for the ships that previously needed to sail around whole continents. I did conduct giant projects; I prepared the preliminary projects of the three-storey Euro-Asia tube crossing, which was planned together with Marmaray rail way, and presented them to the public in the election campaigns of the Istanbul Metropolitan Municipality in which I was a candidate in 1994, 1999 and 2004. For example, I find and support the projects of the government such as Osmangazi Bridge and the bridge to the Dardanelles because they correspond to a need. But Canal Istanbul is a “sick” project. If the problem is the number of oil tankers, the marine traffic in the Bosphorus has decreased. Also, more appropriate projects can be made in this sense.

On the other hand, nearly 400 experts worked in the 2009 Environmental Plan and Mayor Kadir Topbaş was referring to this plan as the “50-year Constitution of Istanbul.” According to the plan, the green north of Istanbul was protected.

Now, with the third bridge, the North Marmara Motorway, the new airport and finally the Canal Istanbul Project perforated this plan and the plan has become obsolete. TEM (Trans-European Motorway) was constructed as a speed highway for transit transportation, but later turned into a city road with attaching connected roads. The city grew rapidly to the north and became concrete. Now we will experience the same situation with the third bridge, the Northern Highway and the new airport. It has already been understood that the surroundings of the Canal Istanbul Project will be opened for construction. There are also problems with the Black Sea. According to the scientific study of Prof. Dr. Hüseyin Murat Çekirge from USA, there is H₂S (Hydrogen Sulphide) gas trapped under the Black Sea. Due to the level difference of 30 cm between the two seas, the canal project disrupts the water budget and brings the risk of this gas to be released and mixed with air. If this gas is mixed into the air, other countries in the impact area, especially the countries that have a coast to the Black Sea, will also be poisoned.

TRANSMAR Marmara Floating Auto-Ray Viaduct, which is a leg of my “Circles System” project, which combines Sabiha Gökçen and Atatürk Airports from the sea, which will reduce the transportation load of Istanbul, was included in the world press and scientific books. I designed this project so that the remaining lungs of Istanbul, namely Northern Forests would not be injured; the project was not conducted as it was not suitable for land speculation. In this framework, it is not correct to deactivate Atatürk Airport. As a result, our priority regarding Istanbul is not to construct a canal as an alternative to our Bosphorus. Our priorities are the following:

- ▶ Limiting the population,
- ▶ Preparing the city for earthquakes by transforming the stock of unsound and distorted building inventory;
- ▶ Streamlining transport;
- ▶ Prepare the city for climate change.

Canal Istanbul Project is not scientific and sustainable; I still sustain my opinion as it is megalomaniacal rent initiative.



Prof. Dr. Nuran Zeren Gülersoy
Işık University,
Faculty of Architecture and Design

Istanbul is a city with a rich natural, historical and cultural heritage in a special geographical location. The positive and negative developments in the spatial structure and socio-economic consequences of Istanbul will not affect only Istanbul, but Turkey as a whole. Istanbul aspires to be the centre of Eurasia in terms of finance and service, logistics, communications, transport, infrastructure, tourism and culture.

Canal Istanbul Project is a real estate and rent project. In the plan, 36 thousand 453 hectares are reserved for residential areas. That is more than 4 times the 8714 hectares allocated for the third bridge and the third airport.

The central government is advancing its design and reconstruction initiatives for Istanbul to make it a city with attractive features for Europe, Asia, the Middle East and Arab Countries in terms of financial initiatives and especially real estate investments. On the other hand, the Bosphorus and its surroundings, with its geographical, biological, physiographic, hydrological and oceanographic features, create a unique ecological environment between the Black Sea and the Mediterranean. It is a vital necessity for the people of Istanbul to protect the water basins for covering the need of city's fresh water needs until the alternatives are developed. In order to ensure the healthy development of Istanbul, protecting forest areas, fertile agricultural lands and preventing air, water and soil pollution are of vital importance.

Unless the efforts to develop the economy through the real estate sector are based on a well-researched and properly designed planning, it will adversely affect the livelihoods of people of Istanbul. There is no direct relationship between the vision, goals and objectives of the newly displayed plan and the decisions of the 1 / 100,000 Scale Istanbul Environmental Plan of 2009. It does not contain solutions in accordance with the 2009 Environmental Plan, nor is it compatible with the plan which has contradictions in itself and EIA Report currently under display in terms of content and process.

The 2009 Environmental Plan is a plan that identifies with the historical, cultural and natural values of Istanbul, envisages the protection of the city's life resources in the north, reflects environmental, economic and social sustainability principles on the place, and enhances the quality of life, and adopts an effective and participatory city management / governance. For the third bridge, which is not included in the Environmental Plan of 2009 and is not suitable for the plan approach, a total of 2542 hectares, of which 1416 hectares on the European Side, 1126 hectares on the Anatolian Side, 6172 hectares for the third airport, and a total of 8714 hectares of forest area have been allocated. A large part of the reserve project area proposed for the Environmental Plan Amendment is agriculture and forage land. These areas will disappear with the implementation of the project.

In line with the purpose stated in the Environmental Plan Amendment explanatory report, issues such as airport, tourism and urban transformation were emphasized. Therefore, the plan amendment is not suitable for the reserve area definition and purpose. It is obvious that this project, which does not comply with planning principles, techniques and method will harm the quality of life of Istanbul residents and will not make any positive contribution. In summary, this is not a transportation project, but a settlement project through which a canal passes.



Assoc. Prof. Dr. Pelin Pınar Giritlioğlu
TMMOB, Chamber of City Planners,
Istanbul Branch

First of all, it is necessary to start with the definition of the planning and reserve areas specified in the Canal Istanbul Project. The main purpose of construction areas is to create new settlement areas in order to prevent disaster risk. In the planning area of Yenisehir, there are 33 thousand 498 hectares in total; and it consists of 4 regions: namely “Ecology and Technology Zone”, “Development Housing and Trade Zone”, “Tourism and Transformation Zone” and “National and International Logistics Zone”.

With the Yenisehir project, 8 forest villages will lose their quality as village, and many neighbourhoods will remain in the impact area and the Terkos-Haliç-Küçükçekmece ecological corridor will be damaged. It is necessary to emphasize the following issues regarding Canal Istanbul Project.

- ▶ The Canal Istanbul Project contradicts the upper scale plan decisions and is legally null and void; it is unlawful.
- ▶ The plan is a plan that shows nature as address and encroaches the city’s water right, right to life and public rights.
- ▶ In the canal planned to be narrower and longer than the Bosphorus, different security measures that cannot be taken in the Bosphorus will not be taken either.
- ▶ Canal Istanbul Project is a real estate project.
- ▶ Natural and artificial risks are created through the project. It creates population and settlement pressure on three active fault lines.
- ▶ Although quality life is stated to increase, there is not any article as for the improvement of quality of life in neither in the EIA Report nor in plan report. This plan will not increase the quality of life, but on the contrary, the quality of life of the

people of the region will decrease through this plan.

- ▶ Urban service costs and their prices on the public will increase. For example, citizens who do not pass over the bridges will pay for the bridges which have passenger guarantee.
 - ▶ Canal Istanbul Project is unacceptable because it does not favour the public interest most.
 - ▶ It is a mega project not included in the 1 / 100.000 scale plan.
 - ▶ It disregards the disaster risk in contradiction with the objectives of the 2009 Istanbul Environmental Plan. Likewise, it does not preserve the ecological balance; it opens the north for construction and consumes water basins.
 - ▶ It is a project planned to consume the resources of the city, which does not have an example in the world.
 - ▶ The Northern Forests in the impact area of the project are the forests that Europe accepts among 100 forest areas that should be protected primarily.
 - ▶ Economic reasons that are the only reason of the project are also refuted. It is a hollow argument that a project consuming fundamental life resources namely agriculture, water, forests resources will make lots of money.
 - ▶ There is important information about the damages and effects of the project in the annexes of the EIA Report but not in the main content of the report.
 - ▶ It is stated in the EIA Report that the implementation will be made by using the Regulatory Partnership Share (DOP). In other words, 45% of the land will be taken from the people free of charge, but it will not be used in accordance with DOP deduction. This will lead to dispossession and displacement.
- To summarize, Canal Istanbul Project, with its archaeological and ecological risks, is an eco-butcher project that violates the property right, takes away the rights of the society and is of no public interest.



Prof. Dr. Şevkiye Şence Türk
İTÜ, Department of Urban and
Regional Planning

I want to start off my words by addressing Canal and Yenisehir dilemma. Reserve construction areas are determined in accordance with the Law No. 6306 and this area consists of 42 thousand hectares.

Which project causes the formation of the other, whether it is Yenisehir or canal project, it is unknown. The impact of the Canal Istanbul Project primarily and then the Yenisehir project should be evaluated.

60% of the agricultural areas will be opened for construction with the residential areas to be constructed.

The division of Canal Istanbul Project into 3 parts means dividing the natural structure into 3 parts, disrupting the integrity of the constructed environment and dividing a past into 3 parts. With the Yenisehir project, 60% of the agricultural lands are opened for construction. In the upper scale plans, the lower centres are planned to develop on the east-west axis, but north of Istanbul is opened to development with Yenisehir and Canal projects.

Rotterdam, which is a logistics centre, is shown as an example to Canal Istanbul Project. However, Istanbul and Rotterdam are two cities that are not alike in terms of historical development, demographic structure, sector composition and socio-economic development levels. Projected population is not specified in the 1 / 100.000 Istanbul Environmental Plan Amendment plan explanatory report. There are decisions such as “The population cannot exceed 500 thousand, but 500 thousand new jobs will be created.” Since the projection

of the population is not included in the report, the population that to be transferred to this region due to the new employment is ignored. These decisions contradict each other. Yet there is certainty in the Turkish planning system and it progresses according to the hierarchy system. In this system, plans are important, not people’s comments. Decisions should be made according to the plans made.

Istanbul has a forgotten vulnerable geography. Therefore, the decisions taken should observe this sensitivity. There is also the risk of concentrating all investments in Istanbul. Concentrating all the investments at a single point is an important strategic mistake. In case of a problem, all investments will be affected by this very problem.

As a result; projects such as Canal and Yenisehir should be determined by planning decisions at national and regional level.

The necessity of the Canal Istanbul Project should be discussed at the level of planning decisions, but the Yenisehir project is definitely not a requirement for Canal Istanbul. ■

SAZLIDERE DAM



TERKOS LAKE

Summary

The most emphasized point in the "Spatial Planning, Urbanism and Transportation" session under the moderation of IMM Deputy General Secretary General Ibrahim Orhan Demir is that "The project does not have a scientific quality." The results of the session are as follows:

- ▶ **The Environmental Plan, approved in 2009, protects the north of Istanbul. However, this project opens the north of the city to the settlement.**
- ▶ **The changes made in the Environmental Plan are not in accordance with the definition and purpose of the reserve area.**
- ▶ **Canal Istanbul is not a project designed in an integrated manner. It will bring high costs to both land and sea transportation.**
- ▶ **Northern Forests, one of the 100 forests that should be protected primarily, will be negatively affected.**
- ▶ **The project should comply with national and regional planning decisions.**
- ▶ **Yenişehir and Canal projects should be evaluated separately. The Yenişehir Project is not necessary for Canal construction.**
- ▶ **Canal Istanbul is an initiative, not a project. It is against the principle of sustainability.**
- ▶ **Canal Istanbul is an ecocide project.**

1.3 Environmental Dimension, Water and Ecology

In the session “Environmental Dimension, Water and Ecology” moderated by the Istanbul Metropolitan Municipality, Head of Department of Parks, Gardens and Green Areas, ecological impacts of canal project on Istanbul are addressed extensively.



Assoc. Prof. Dr. Ahsen Yüksek
Istanbul University, Department of Marine
Sciences and Management

In my speech, I will focus on the importance of Marmara Sea, productivity, bottom oxygen level, water quality, biodiversity, current status, species distribution and how ecological quality of coastal water bodies have changed in recent years due to pressures. The Marmara Sea ecosystem is a rare system worldwide. It provides 6 of the 7 criteria used in determining the criteria of Ecological or Biologically Important Marine Areas in UNEP / CBD / SBSTTA / 16 / L.13 with “high” values.

It is a strait system between two important seas such as Marmara, Mediterranean and Black Sea and is called the “Turkish Straits System”. Unfortunately, due to the pressure on this particular sea, which is completely under our management, the system has been rapidly collapsing in recent years, especially after 2010. It is possible to follow this situation frequently from the press, especially in winter.

In this context, we can list the reasons such as recent fish mortality, reduced fisheries, coloration observed in sea water, increases in the amount of seaweed and jellyfish and mucilage (skateboarding by name).

► The pressure of the population, especially concentrated in Northern Marmara, on the sea; the high amount of nitrogen and phosphate from wastewater, has broken the food chain in Marmara Sea. In the North Marmara Subwater, where hypoxic conditions prevail, the oxygen level has fallen to levels that are not sufficient for the life of the living after 2016. Likewise, since the oxygen level is very low in the deep waters of Izmit Bay and Gemlik Bay, where the flow system is weak, biodiversity remained at the “bad” level in these areas. In other words, reproduction, development and feeding areas

of many species have disappeared due to human pressure and poor management.

► Coastal fill areas have a significant impact on the Marmara Sea biodiversity even at present conditions. It means the disappearance of natural areas, especially beach areas. This situation also affects species diversity in the same region. The dunes contain special living groups in marine systems and are the ecosystem units that play an important role in the conversion of inorganic matter into organic matter, removing toxic substances (such as petroleum) and removal of marine waste from the marine environment. Filling these areas and turning them into hard grounds will cause the dune ecosystem functions to disappear and biodiversity and habitat destruction in Marmara and Black Sea.

► The destruction of the natural wonder Karaburun coastline, which was formed in the centuries-old coast of the Black Sea, instead of being a Blue Flag candidate, is an important loss both for the people of Istanbul and for marine creatures living in the marine region and in conservation status.

► In addition, especially in Marmara, coastal fill areas and coastal destruction will cause jellyfish polyps to settle in these regions, increase their populations and change living creature groups that distribute in the pelagic system.

► If the population continues to increase in the north of the Marmara Sea, the high nitrogen and phosphorus load in the marine environment will increase, and the low oxygen level in the bottom water will decrease even more. As a result, important fisheries will disappear as the anaerobe conditions observed in the deep regions of the Gemlik and Izmit bays approach towards the shore in the Silivri Bay and Istanbul region.

► Nitrogen, phosphorus and flow rate calculations are incorrect along with the analysis of water quality values mentioned in the EIA Report. Therefore, the inferences related to this are also misleading.

As a last word, I would like to emphasize an important issue: Importance should be attached to the controlling the population growth in order for it to serve a healthy society for the welfare of the Marmara Region; and to the projects that will not

increase the population, but decrease it and therefore, projects that will reduce the pressures on the society. On condition that the Marmara Sea is managed correctly with the contribution of central and local administrations, it can return to its former productive status in a short time.



Prof. Dr. Cemal Saydam

Hacettepe University,
Department of Environmental Engineering

The Marmara Sea's already poor structure faces the danger of extinction due to external influences and interventions. The amount of oxygen in the Marmara Sea does not allow living in a healthy way. In summary, the Marmara Sea is a "child with asthma" and has to live with it.

Due to the environmental damage that will occur in Sazlıdere and Küçükçekmece lakes, the Marmara Sea will remain anaerobe and an intense rotten egg smell will adversely affect both urban life and human health.

The Marmara Sea, where 2.2 cubic kilometres of organic cargo is discharged every year, is already unable to handle it. According to the project's EIA Report, the amount of additional water coming from the Black Sea is 21 cubic kilometres, and if one tenth of this organic load it equals to 2.1 cubic kilometres. Also, it is obvious that this load will be much more if the stream will carry the organic material accumulated at the bottom of Sazlıdere and Küçükçekmece lakes. Therefore, the number of 2.1 cubic

kilometres is the most optimistic estimate. As a result, with the amount discharged by İSKİ, the organic load poured into the Marmara Sea increases by one hundred percent. So what happens if the Marmara Sea cannot bear this load? In this case, Sea of Marmara will continue to be break down the organic matter using oxygen. As a result, since there is not enough oxygen in the Marmara Sea substrate, it takes oxygen from sulphate and remains H₂S. H₂S gas will produce a rotten egg smell, just like in the Izmit Bay pothole. If this occurs once, there is no turning back. This smell will be present wherever the lower water mixes with the upper water; along the Bosphorus, in Bebek, Kuleli fronts and offshore Ahırkapı. When there is southwester, all of Istanbul and South Marmara will be exposed to this smell with northeaster. Marmara will be exposed to this smell. This smell affects human health negatively; it is known that it reduces the male reproductive system in a hereditary way by 20-30 percent.

Canal Istanbul is not a project that you can say, "We made a mistake, let's go back". Even if you regret it, there is never going back. Therefore, this project should not happen.



Prof. Dr. Derin Orhon

Near East University, Faculty of Construction
and Environmental Engineering

Despite the fact that almost all of the scientists are working on the scientific data about why Canal Istanbul should not be done, the justification for the project has not been explained convincingly yet. It will not be possible for the vast majority of tankers and cargo ships pass through the canal, of which water depth is reduced from 25 meters to 21 meters.

Unfortunately, the EIA study ignores the fatal effects of the Canal project in Istanbul and nature in any subject that can be addressed. A severe environmental destruction will be experienced with the canal project. First of all, the Black Sea and especially the western region is a very dirty environment. The canal will discharge this pollution to the shallowest and most sensitive area of Marmara. Pollution load to be transported to the sensitive area of Marmara is calculated as the equivalent of at least 2 million people through Canal Istanbul. This amount means the discharge of wastewater generated by 20 million people to Marmara after treatment. A pollution load at this level due to Canal Istanbul brings the risk of consuming dissolved oxygen in the Marmara Sea and causing eutrophication.

The opening of the canal's shores for settlement has already been planned. This region cannot be prevented from attracting at least 2 million inhabitants. This development is clearly a violation of the 16 million maximum population limit that the Istanbul Metropolitan Municipality unanimously adopted and the 1 / 100,000 Environmental Plan, which is still in force, is envisaged for the city.

More than 2 billion cubic meters of excavation waste will emerge from the canal construction. The current legal legislation explicitly prohibits the discharge of excavation wastes into the sea and also carrying out filling. In the project, it is planned to construct a 38-kilometer fill area on the Black Sea coast with excavation waste, ignoring this prohibition. If this filling is made, all the natural beauty and ecological values of the Black Sea coast will be destroyed in an irreversible way.

Under the Black Sea conditions, loose soil filling contains a large risk of dissolution and moving. In this case, the ecological structure will take a serious blow on the coastline of the Black Sea. Beyond that, the dispersion, sedimentation and destruction of natural type cover of the filling material to be transported from Canal Istanbul will create a major ecological hazard.

Water basins of Istanbul are protected as per legal legislation. Canal Istanbul Project

ignores this legislation and destroys the Sazlıdere Dam, which has a water supply capacity to a population of 1.35 million in Istanbul. Likewise, the southeast catchment basin of Terkos Lake has been disappearing and Terkos faces a great deal of salinization. In case that Terkos Lake is also lost, water supply of Istanbul will be hit by a fatal blow. In addition, construction around the Canal will require the allocation of the entire Büyükçekmece Lake to the canal and will create an additional demand for potable water. On the one hand, such an additional demand for Istanbul, which is struggling to supply water from Melen, is a burden that cannot be endured. In summary, it means the collapse of the water system in Istanbul.

With the excavation wastes, a 38-kilometer filling area is planned to be constructed on the Black Sea coasts. Coastal filling areas will destroy the reproduction, development and feeding areas of many marine species.

The structure of Canal Istanbul means the establishment of a permanent salt water tank larger than 260 million cubic meters in the heart of Thrace. This permanent structure will cause salinization of agricultural fields and groundwater in directions, east and west, in the short and long term. As a result, with Canal Istanbul, 140 million m² of agricultural land and 23 million m² of forest area will be destroyed.

It is necessary to provide the necessary depth in the shallow region where Canal Istanbul is opened to Marmara and to make a bottom sweeping in very important volumes for the marine structures. The EIA Report does not describe any precautions for this sweeping waste containing very polluted and active organic matter. The dispersion of the active organic material swept to Marmara means a danger that will destroy the ecological structure in its entirety. The same danger exists for the clay mud at the base of Küçükçekmece Lake as well. The EIA Report, like all other environmental hazards,

chose to ignore this possibility.

As a result, the canal project, which will be discussed to be constructed in the north of Istanbul, will mean the collapse of nature. Therefore, we are really facing a vital choice between “canal or Istanbul”.



Prof. Dr. Doğanay Tolunay
Istanbul University,
Cerrahpaşa Faculty of Forest

Beyond that, the information contained in the EIA Report is full of contradictions and errors. For example, even the impact area of the project is not clearly specified. The total land uses within the canal area 6,839 hectares in one table and 6,973 hectares in another table.

The foundation of Istanbul Airport was laid in 2014 and although it started to operate in 2019, Istanbul Airport was not shown in the satellite images included in the EIA Report. With the changes made in the Environmental Plan in 2019, 36,453 hectares of land will be opened for construction.

It was announced in the EIA Report that 201 thousand trees will be cut down. However, this number does not include trees with a chest height (130 cm) and less than 8 cm in diameter. When these are taken into account, the number of trees to be cut reaches approximately 400 thousand.

428 hectares of forest area will be cut due to the canal, some of which is Terkos Sand Dune afforestation, which has been in conservation forest status since 1961. Although conservation forests are the highest nature protection category in our country, this situation has not been taken into consideration in any way.

It is claimed that the new city to be established with the Environmental Plan amendment will increase the amount of green space per person in Istanbul by 2 square meters. However, the canal area already consists of natural areas. Creating grasslands by destroying natural ecosystems does not mean increasing the amount of green space. Doğa (Nature Foundation) determined that 11 of the 305 important natural areas in Turkey are located in Istanbul and 10 of which is currently in the impact area of mega projects.

From the land use change caused by the canal, 700 thousand tons of CO2 (Carbon dioxide) equivalent emission will occur, 4.4 million CO2 equivalent emission from the new airport and the new bridge will occur.

Deforestation and land use changes are also the cause of global warming. Only 700 thousand tons of CO2 equivalent emission will be emitted from the land use change caused by the canal, and 4.4 million CO2 equivalent emissions from the new airport and new bridge will occur. Therefore, greenhouse gas emissions resulting from deforestation and land use changes were calculated incorrectly and incompletely in the EIA Report.

Per capita water consumption is constantly increasing in Istanbul. Along with the loss of water, water consumption per capita has reached 190 liters today. If the population reaches 16.7 million and the water consumption per person including the loss of water is 300 liters, the annual water demand of Istanbul will increase to 1.8 billion m³ and if the Melen Dam is not constructed, the existing water resources will not meet this amount. If the population of Istanbul reaches 27 million and the water consumption per person is 300 liters including loss of water, it is possible that the annual water demand will increase to 3 billion m³. Even if the Melen Dam is built, this need will not be met. In addition,

due to the climate crisis, Istanbul water resources are expected to shrink by 30%. In the EIA Report, there is a proposal to build a new dam to save 19 million m³ of water supplied from Sazlıdere Dam. However, it is not clear when and how the dam will be constructed.

There are also lacks in the figures regarding the flora information provided in the EIA Report. The number of plant species in the area covered by the EIA is at least 700, not 399. There is a suggestion to move endemic and threatened species in the project's impact area in order to protect them. However, such suggestions do not ensure the protection of species. Similarly, while the protection of some habitats (the creek connecting Terkos Lake to the sea, the reeds and marshy areas in the north of Küçükçekmece Lake, etc.), which are important for living creatures, is included in the fauna report, these suggestions were not taken into consideration in the EIA Report. The number of air quality, soil, water and sediment sampling is insufficient in the EIA Report. For example, PM10 and PM2.5 measurements were made only in one day. Air quality measurements should be done for at least one year. Moreover, air pollution measurements were made before the third airport became operational. Soil samples were taken only from the surface. It is necessary to take soil samples at some digging depth that will reach 150 meters in some places, and to analyze all heavy metals and other toxic substances including asbestos. Samples taken from soil for air pollution are extremely insufficient. The construction of the airport and third bridge connection roads in the area is ongoing. Therefore, a cumulative impact assessment is required. However, the EIA Report does not make this assessment either.

There is only one question we need to ask: “Economy or ecology?” The answer I will give is very clear. Of course, ecology, because the economic costs of nature destruction for economic value are much higher.

In the EIA Report, it was stated that 2.5 tons of dust will be emitted per hour while the excavation is being carried. However, dust emissions from excavation are accepted as “0”. However, this is erroneous and emissions from transportation also need to be calculated. If this calculation is made, hourly dust emissions will at least double up. The emissions to occur are higher than the values given in the related regulations. Similarly, blasting calculations are also incorrect.

Some maps related to air quality modelling were used in the EIA Report without a legend. However, air quality models are also incorrect. Emission factors used in dust emissions are incorrect. In the modelling phase during operation, ships passing through the canal were assessed as point pollutant sources. However, these should be considered as linear sources. Emissions from ship waiting areas are not modelled. Likewise, pollution caused by airport traffic has not been taken into account. Despite this, emissions exceeded the limit values. No proposal has been developed to reduce this pollution above the limit values.

Terkos Lake is under the canal's impact area and will be directly affected by excavation, ship and aircraft traffic. However, in the EIA Report, the possible impacts of air pollution on Terkos Lake water quality have not been evaluated since the canal's impact area is kept very narrow. However, the pollution that will occur is in high amounts and the waters of Terkos Lake can be contaminated. We are facing a dangerous vicious circle. In vulnerable societies, climate change increases the frequency and severity of climatic disasters and exacerbates ecosystem destruction. Ecosystem destruction also increases disasters, reduces resilience and increases greenhouse gas emissions. Increased disaster risk destroys ecosystems and societies; deepens the adverse effects of climate change. There is only one question we need to ask: “Economy or ecology?” The answer I will give is very clear: Of course, ecology because the economic costs of nature destruction for economic value are much higher.



Dr. Sedat Kalem

World Wildlife Foundation(WWF)
Turkey Protection Director

Terrestrial and marine ecosystems and biological diversity (habitats, species, and genetic values) of Istanbul are important at national / international and intergenerational levels.

Canal Istanbul Project will be the largest engineering operation facing the nature of Istanbul to this date. The entire Çatalca Peninsula will turn into a construction site. In order to conduct such a great intervention in a healthy way, the components of the terrestrial and marine ecosystems and their particular dynamics should be carefully studied and that study has to be supported by reliable data.

In such situations, where complexities and uncertainties are high, values conflict, and losses can reach to catastrophic dimension, the precautionary principle is vital. The decision process on such a subject, which has multi-dimensional (physical, ecological, socio-economic, political, legal) effects, should be open to the public and pay attention to science. The process related to the Canal Istanbul Project, which is not included in any plan related to Istanbul, is not transparent; the project should be publicly negotiable. The classical EIA approach is insufficient. The EIA should be done with a neutral eye, with the logic of questioning the project. The current EIA Report is far from meeting these conditions.

Another important point that I would like to emphasize is that it is not enough to solely address Canal Istanbul Project. It should be addressed together with major projects such as North Marmara Motorway and Istanbul Airport as a whole. Apart from Montreux, seven internationally binding conventions (UN Biological Diversity, UN Climate Change,

Bucharest Convention, Barcelona Convention, Bern Convention, Ramsar Convention, European Landscape Convention) should be taken into consideration. What I'd like to say as a last word is: Every inch of soil, every drop of water is very important. Let's make a new start for nature and man.



Selahattin Beyaz

TMMOB, Chamber of Environmental Engineers,
Istanbul Branch

When we evaluate the Istanbul Airport, Yenişehir and Canal Istanbul Projects as a whole, the President of the Water and Waste Water Commission, I can say we are faced with an unforeseen size and irreversible ecological destruction. This project should be completely abandoned even when solely its impact on water resources is taken into account.

Istanbul may face a major disaster with the destruction of important water resources such as Terkos and Sazlıdere, which meet 29% of its water needs.

In the 2009 Environmental Plan regarding Yenişehir construction area, it is stated that "the development of the city, which shows tendency to the north, should be prevented, and that multi-centred and vault development should be ensured on the east-west axis and along the Marmara Sea". With the new plan amendment, the development axis is determined as the north-south axis, while the water basins, agricultural areas and forest areas of the city are opened for construction.

When the basin annual yield of the Terkos Lake and Sazlıdere Dam on the

Canal and Yenişehir construction areas route is analyzed, it is seen that Sazlıdere Dam's and its basin's the water retention capacity efficiency per m² is the highest. Approximately 60% of the Sazlıdere Dam catchment basin will be lost due to Canal Istanbul Project. This rate corresponds to approximately 8% of the water demand of the European side. This is a rather important value.

Underground water resources are in danger. It is stated in the EIA Report that due to salty water leaking from the canal, the groundwater source may be adversely affected.

As stated in the DSI(State Hydraulic Works) report, the Sazlıdere Dam, which has a cost of approximately 2,250,000,000 TL, will be completely deactivated. In this case, the Sazlıdere-İkitelli system, which currently meets the water demand of 5 million inhabitants of Istanbul, will be disabled. While water bodies of a city of which there is the risk of dehydration on agenda at any time, it is not acceptable to deactivate these water bodies as there is the expectation of improvement of them.

Istanbul Airport is completed in an irreversible way and opened for operation. Pollutant pressure of the airport to Terkos Lake water source and Terkos Lake catchment basin should be monitored and this water source should be protected through taking precautions by all means. Considering the damage that canal project can cause to Terkos Lake, Terkos and Sazlıdere, which meet 29% of Istanbul's water demand, there might be a major disaster. This rate corresponds to the water demand of approximately 6 million people. Basin areas of Istanbul, which receives an average of 3 billion cubic meters of precipitation annually, and the city's water management planning should be re-made accordingly. The construction approach of the city in north-south direction, which has become well evident with the Yenişehir reserve construction area project, should be abandoned. 46% of the urban area with a total area of 5461 km² is water basin area

and 37% of the total basin area is located in the project area. Taking into account the basin size, Canal Istanbul and Yenişehir reserve construction area projects should be abandoned immediately.

Currently, the population per hectare in the region is 51 people. However, when the personnel and their families working at Istanbul Airport are taken into consideration, it is understood that the population in the region is much higher than the specified number. With the new projects, the population of the region is estimated to reach 1.6 million people. In this case, the demand for water in the region will increase and the pollutants originating from the residential areas will put pressure on the catchment areas of the basin. A tremendous and sudden population growth will cause irreversible destruction of water basins. Underground water resources are also in danger. It is stated in the EIA Report that due to salty water leaking from the canal, the groundwater source may be adversely affected. In State Hydraulic Works' report, the definition that "in case that there salty water discharge to the aquifers along the route, in addition to the risk of pollution of aquifers, the risk of acceleration of aquifer discharge and water drilling wells in close surrounding belonging to persons and organizations will be affected, as such a risk might arise.". In summary, the Thracian groundwater outside the project area will also be negatively affected.

The tunnel structures, which are foreseen to be one of the first structures to be built during the project, are of vital importance for ISKI to continue its water transmission function. Therefore, many impacts will occur in the construction phases of the project, such as water shortages in the city, halting of infrastructure services and disruption of traffic services which will decrease the quality of life.

Known as Canal Istanbul, the waterway is a project that does not rely on any technical basis, but only increases the market value of the Yenişehir construction area. The Chamber of Environmental Engineers Istanbul Branch will take place on the labour, nature and science front against unscientific ecological destruction projects. ■



Summary

In the session "Environmental Dimension, Water and Ecology" moderated by the Istanbul Metropolitan Municipality, Head of Department of Parks, Gardens and Green Areas Prof. Dr.Yasin Çağatay Seçkin, the emphasized statement is "Marmara sea and its coast are under risk." Other emphasized points are the following:

- ▶ **The natural flow balance of the strait will be disturbed.**
- ▶ **Since the contrasting features between the seas are unique to this region, there is a severe risk of contamination with the project.**
- ▶ **Human health will be adversely affected.**
- ▶ **Biodiversity will be negatively affected.**
- ▶ **Amount of nitrate and phosphate will increase; oxygen level in the sea will decrease.**
- ▶ **Greenhouse gas will increase, pollution will occur and human health will be adversely affected.**
- ▶ **Agriculture, pasture, forest areas and drinking water basins will be adversely affected.**
- ▶ **The project will cause irreversible ecological destruction.**

1.4 Social Dimension and Participation

In the session "Social Dimension and Participation" moderated by Istanbul Metropolitan Municipality, Head of Department of Cultural Assets, Mahir Polat, a detailed evaluation is made regarding canal's impact on social and moral values.



Assoc. Prof. Dr. Ayfer Bartu Candan
Bosphorus University,
Department of Sociology

I think it is very important to create opportunities for discussion in the public sphere of the Canal Istanbul Project, which will affect the geography of the city and many developments simultaneously. The ecological, economic and legal aspects of the project are discussed extensively through of the EIA Report, but it is not possible to say the same for the social and sociological impacts it will create.

The Social Impact Assessment report, which is prepared as an annex to the EIA Report, allows for examination of the negative impacts of the project on issues such as employment structure, population movements, social vulnerability, community health and safety. The first thing to be highlighted concerning the Social Impact Assessment Report is that it is present in international legislation but not in national legislation. Failure to address this shortcoming makes the evaluation of the report in terms of its social consequences even more important.

The Canal Istanbul Project covers six districts, but it will also affect many districts in its hinterland. A very important part of the project area covers agriculture and forest areas. Therefore, there is a possibility of social consequences similar to those experienced in the regions where urban transformation projects are conducted.

There is no homogeneous population in the project area in terms of class structure, economic structure, educational structure and employment opportunities. We observe a low income population with a predominantly agricultural income in the district and north of Arnavutköy. 80%

of the agricultural products (especially vegetables and fruits) produced in this region are consumed by the local people. In Küçükçekmece Region; located in the south of the project area, mostly workers' families are working in the organized industrial zone. Therefore, expropriation in these regions means destroying the livelihoods of people living in the region and destroying their livelihood methods.

It is stated in the report that the only business line specified for job creation is the opportunities in the construction sector that will occur for a certain period during the construction of the canal. Although this is a periodic job, farmers living here will not be able to work in construction.

Expropriation means destroying the livelihoods of people living in the region and destroying their livelihood methods.

Due to the foreseen unemployment, it can be predicted that the people of the region will have no choice but to migrate, and will have to settle in other regions (eg Tekirdağ and its surroundings) to make a livelihood just like in the Slum Transformation Areas.

The most important issue is to be addressed is the urban poverty that prevails in the region. If agricultural land is taken from the hands of a social group that consumes 80% of its agricultural product, it is inevitable that a massive poverty will arise. The negative social impacts of the Canal Istanbul Project will be much stronger and more visible in this region where social vulnerability is high for many economic and sociological reasons.

As stated in the Social Impact Assessment Report, excavation works and traffic density that will form during the construction will affect the public health in a physical and psychological way. On the other hand, the report states that the only positive impact of the canal project is the short-term employment opportunities that will occur in the construction industry.

If the regional conditions are taken into account, the report identifies possible problems, but provides only a list of few wishes instead of the solutions.

The Canal Istanbul Project will render the poor people residing in the region unable to live in this city. If there is any intention to ensure social justice for the poor people residing in the city, it is necessary to avoid all mega projects, especially Canal Istanbul.



Bekir Ağırdir

KONDA Research and Consultancy
General Director

As we discuss Canal Istanbul Project these days, the society in Turkey has a much more different important agenda. People in our country increasingly indicate that they are extremely worried about their individual lives. A significant reason for this concern is the rising unemployment figures.

Up-to-date surveys we conducted as KONDA show that 60% of citizens in Turkey fear both about their own future and the future of their country. 76% of the society thinks that both the conditions in the country and their conditions will be worse than today in the next quarter.

Those who reckon that Canal Istanbul Project is necessary and fruitful are less than a third of the society, however 98% of the youth between the ages of 15-30 think that taking earthquake measures is a priority over Canal Istanbul Project. Considering that there are 8.5 million applications for zoning amnesty and when this figure is taken into account that shows that one out of every 4 buildings

is not suitable for construction, this rate is not surprising. In this context, it is possible to say that those who consider taking earthquake precautions as a priority over the construction of the canal project constitute 80% of the society. Whether such a great intervention in nature can be carried out with an institution, a person or a parliament without asking the people of Istanbul should be discussed extensively. Every investment in Istanbul harms Istanbul, but investing outside Istanbul does not seem very meaningful today. Overcoming this paradox is critical for the future of Istanbul.

Those who consider Canal Istanbul Project is necessary and fruitful are less than a third of the society, but young people between the ages of 15-30 98% think that taking earthquake measures is a priority.

The citizens of Turkey need deliberation, not polarization. In our country, people do need to heavily express what they are in favour, not what they are against. In our country, people need to consistently state what they are in favor, not what they are against. Therefore, the only benefit of this project, which is intended to be imposed on the society, is the opportunity to deliberate and accordingly change our lives.



Prof. Dr. İhsan Bilgin
İstanbul Bilgi University,
Faculty of Architecture

We are facing a world agenda oriented by the concept of “rent”(unearned). Economic benefit and profit should in no way be more important than “lifeworld”. In this context, the alternative of the earth being an instrument of rent under the climate crisis conditions, is to adapt a living practice which we can express with the concept of Lebenswelt “(life-world)” which is based on phenomenology and is inspired by Christian Norberg-Schulz’s studies. It is possible to define this practice as the design of world being a “place” entwisted by the experience of life in the simplest terms.

Canal Istanbul Project has been presented as a project to transform “lifeworld” within its borders into rent, let alone coming up with capacity to produce “lifeworld” per se, and it is advocated in this way. On the other hand, it is frequently stated that funds circulating in the global financial system and investment alternatives do not grant Canal Istanbul Project a chance as a means of creating rent. This possibility should be considered important in terms of the fact that it can put Turkey’s economy in the risk of a new crisis. The most important effect of Canal Istanbul Project in terms of social benefit has been the encouragement of the opposition block to have a solidarity based on “life-world”.



Prof. Dr. Murat Cemal Yalçınan
MSGSU, Department of Urban and
Regional Planning

Canal Istanbul Project was brought to the agenda, in a way that participation process is neglected and without considering its social dimension. There are two important reasons why the canal project is not legitimate. The first is that the public, including the EIA Report, is not adequately informed and not being transparent. The other is that the project does not have a justification based on sound and convincing evidence.

It is rather important not to leave Istanbul Metropolitan Municipality alone in the fight against the canal. NGOs, scientists and professional chambers, who have been silenced with various pressure should step in.

In the project development processes, first and foremost, a consensus should be reached on the justifications of the project, no information should be kept from the public, and seeking consensus should be created through the use of participatory application tools by creating deliberative discussion atmosphere.

Finally, I would like to draw your attention to an important point. There is no statement in the EIA Report and in the government’s statements that the city’s new wealthy people will not be brought to the project area and the poor will not be displaced from there. ■



Summary

The most emphasized statement in the Social Dimension and Participation session under the moderation of Mahir Polat, the head of the IMM Cultural Heritage Department, was that “a participatory process cannot be found in the project”. Other important findings in the session are as follows:

- ▶ **The social dimension of the project has been ignored.**
- ▶ **The project will lead to the disappearance of agricultural employment, where a large part of the population is living in the area and earning their livelihood from the agricultural areas here.**
- ▶ **Mega projects such as Canal Istanbul are likely to transform the socio-economic structure and cause the people of the region to migrate.**
- ▶ **The new employment opportunities mentioned in the project are temporary.**
- ▶ **The current urban poverty will deepen.**
- ▶ **Farmers, fishermen and women, the most disadvantaged groups in the population are living in the project area in terms of social vulnerability**
- ▶ **Canal Istanbul Project will be extremely adversely affected.**
- ▶ **Endorsing social struggle and new municipal policies in this process are promising.**

Session 2

Session 2.1

Legal Framework and Security

Moderator:

Eren Sönmez

Istanbul Metropolitan Municipality,
1st Legal Adviser

Speakers:

Assoc. Prof. Dr. Ceren Zeynep Pirim

Galatasaray University,
Faculty of Law

Mehmet Durakoğlu

Chairman of Executive Board of
Istanbul Bar Association

Dr. Rıza Türmen

Lawyer, Ambassador

Saim Oğuzülgen

Retired Maritime Pilot

Türker Ertürk

Retired Rear Admiral

Session 2.2

Disaster Risk and Seismicity

Moderator:

Dr. Tayfun Kahraman

İBB, Head of Earthquake Risk Management
and Urban Development Department

Speakers:

Prof. Dr. Haluk Eyidoğan

İTÜ, Retired Lecturer,
Department of Geophysics Engineering

Prof. Dr. Murat Balamir

METU Retired Lecturer
Department of Urban and Regional Planning

Prof. Dr. Naci Görür

İTÜ, Retired Lecturer, Department of
Geophysics Engineering Academy of
Science, Founding Member

Nusret Suna

TMMOB Chamber of Civil Engineers
İstanbul Head of Branch

Session 2.3

Spatial Planning, Urban Development and Cultural Heritage

Moderator:

Dr. Mehmet Çakılcıoğlu

Istanbul Metropolitan Municipality,
Deputy General Secretary

Speakers:

Prof. Dr. Azime Tezer

İTÜ, Department of Urban and
Regional Planning

Prof. Dr. Hüseyin Tarık Şengül

METU, Lecturer - Department of Political
Science and Public Administration

Prof. Dr. İclal Dinçer

ICOMOS Turkey National Committee Head,
Lecturer - YTÜ Department of Urban and
Regional Planning

Mücella Yapıcı

TMMOB, Chamber of Architects
İstanbul Branch

Dr. M. Sinan Genim

Architect

Yiğit Ozar

Association of Archaeologists
İstanbul Branch, Chairman of
Executive Board

Session 2.4

Environmental Dimension: Agriculture, Climate and Ecology

Moderator:

Ahmet Atalık

Istanbul Metropolitan Municipality,
Head of Neighbourhood Units and Food

Speakers:

Prof. Dr. Doğan Kantarcı

İstanbul University Retired Lecturer
Department of Soil Sciences and Ecology

Murat Kapıkıran

TMMOB Chamber of Agricultural Engineers
Head of İstanbul Branch

Prof. Dr. Murat Türkeş

Bosphorus University,
Climate Change and Policies
Implementation and Research Center

Dr. Ümit Şahin

Sabancı University
Climate Studies Coordinator

Assoc. Prof. Dr. Sevim Budak

İstanbul University,
Department Public Administration and
Political Sciences

2.1 Legal Framework and Security

In the session, "Legal Framework and Security" moderated by 1st Legal Adviser Eren Sönmez, Canal Istanbul Project is addressed in terms of international law and security.



Assoc. Prof. Dr. Ceren Zeynep Pirim
Galatasaray University, Faculty of Law

The main justification for Canal Istanbul Project is expressed as decreasing the traffic on Bosphorus and securing the overall transportation. Yet, it is clear that the dimension of international law has not been examined enough. We are facing a Project that would bear significant ramifications on Montreux Convention or even end it altogether, when undertaken. Thus, I would like to start with basic provisions of Montreux Convention. Establishing a crossing regime specific to Turkish straits and adopting free passage for merchant ships and the importance of Montreux Convention lies at the balance that it sets up between Black Sea countries, Turkey and other countries. The Convention vests Turkey with much more rights and authorities than the crossing regimes that International Maritime Law entitles the countries of straits. It leaves the discretion of allowing the warships to pass through the straits to Turkey and vests Turkey with the authority to shut the straits down during the war time. It also adjudicates that the warships of non-Black Sea countries cannot stay in Black Sea more than 21 days even during the peacetime.

The construction of the Canal will not violate the Montreux Convention in itself and Turkey will be able to regulate the passage through the Canal at national level. However, the Canal Istanbul Project will bear many problems for the passage of both merchant ships and warships. For example, it is yet unclear which legal regime is going to be used for both merchant ships and warships that use Canal Istanbul, when they navigate in Marmara Sea and through the Dardanelles. Once put into practice the Canal Istanbul Project may trigger the termination of Montreux Convention. Because the Montreux Convention is a

convention that can easily be terminated unilaterally. Despite the Montreux Convention envisages a full freedom of passage through the straits of trading ships, imposition of passage of certain vessels by Turkey can cause parties to terminate the convention. It is also possible for contracting states to deem the opening of Canal Istanbul as a substantial amendment to the conditions that were present in the time of Montreux Convention signature and they might demand the termination of the convention within this framework. . In short, it is not possible for the project not to bring the Montreux Convention into discussion.

The Convention stipulates that, if terminated, the freedom to cross the straits will continue indefinitely. In such a case, it is possible for Turkey to establish a new passage regime specific to itself; however whether the new regime is in the interest of our country will be determined by political conjuncture.

Implementation of the Project named Canal Istanbul might trigger the termination of Montreux Convention.

In case of the termination of Montreux Convention is terminated and the fact that new specific transition regime is not established, transit passage regime shall be imposed on Turkey although there are different opinions among the lawyers regarding as which passage system to be implemented. In such a case, there will be the right of passage in terms of warplanes and submarines and Turkey shall lose the authority to close down the straits even in the time of war.

If we are to summarize in one sentence, Canal Istanbul Project poses a severe threat for Turkey's security and Turkey should not assume this risk and should avoid all the actions that may lead to the termination of Montreux Convention.



Atty. Mehmet Durakoğlu

Chairman of Executive Board of Istanbul Bar Association

Bringing Montreux Convention into discussion through Canal Istanbul Project is unfavourable in itself. Turkey has never abused the right of sovereignty so far and played a important role in keeping Black Sea as a sea of peace. This should continue as it is from there on as well.

On the other hand, Canal Istanbul Project is a crime against the city and sometimes it is possible to commit the crimes by law.

As a lawyer, it is our duty to explain that this project is a crime; urban rights have been violated and should be abandoned.

But there is also a very pleasing situation. It is the first time that those who run the city are strongly against a crime against the city. City rulers are trying to tell the government something by taking the people behind them, which is very valuable. The waiting of the people of Istanbul until the morning to object to the EIA Report shows that the society has taken the right to the city with urban consciousness as much as possible.

I would especially like to underline the following point: The Amendment of the Environmental Plan clearly violates article 56 of the Constitution. As the Istanbul Bar Association, we will continue to be a bar association that protects the city.



Dr. Rıza Türmen

Lawyer, Ambassador

One cannot observe any example of opening a new canal while there is a natural strait parallel to it. Sovereign rights of Turkish Republic are integrated to Montreux Convention. It is impossible for Canal Istanbul Project not to bring discussions regarding Montreux Convention. If Montreux Convention is terminated, implementation of transit passage system will become inevitable and transit passage regime does not recognize any authority to coastal states.

The attitude of Russia taking Black Sea as a closed sea is indeed quite stable. Russia attaches utmost importance to entitle the right of freedom of passage to coastal states of the Black Sea and ensure the limitations to be imposed to the non-coastal states of Black Sea concerning the vessels of war. Regarding Black Sea as a closed sea will turn this sea into a region of Russian influence. It is possible that all these demands will be put on the table in case of Montreux Convention being terminated. It is obvious that USA and Europe would want that there could be transit passage regime that is valid for all the international straits to be valid for straits of Turkey instead of Montreux Convention.

As the passage of ships through Bosphorus is free and cheap; it cannot be explained why and how ships will pass through the canal by paying five times more and extending the passage duration.

Those in favour and against the Canal Istanbul Project have consensus on three points. First of them is how important is the Montreux Convention, second is the fact that Montreux Convention cannot be

implemented if the canal is constructed and last but not the least that Turkey cannot force the ships to go through the canal instead of the Bosphorus. These three opinions of both parties well explain as to why the canal cannot be constructed.

More importantly, as the passage of ships through Bosphorus is free and cheap; it cannot be explained why and how ships will pass through the canal by paying five times more and extending the passage duration. Russia, which predominantly determines its attitude according to energy policies, does not react to the Canal Istanbul Project for the time being, however if the passage fees do increase and Russian ships have to prefer the Baltic Sea, Russia will certainly not be satisfied with the project.

It is necessary to constantly emphasize two issues regarding Canal Istanbul Project. The right to a healthy environment in article 56 of the Constitution and the principle of public benefit in article 43 of the Constitution are clearly defined. There is a close correlation between these two articles. What kind of public interest will be derived from the expropriation has to be stated. One can regard public loss rather than public benefit in this very project. As a result, it is not explained with convincing justifications as to which justifications are in question for the construction of Canal Istanbul.



Saim Oğuzülgen

Retired Maritime Pilot

The most important justification for the Canal Istanbul Project is to reduce the danger in the Bosphorus. However, it is necessary to discuss how dangerous the Bosphorus is indeed and whether Canal Istanbul is less dangerous or not.

First and foremost, the Bosphorus is equipped with the highest level of safety owing to the to measures such as navigation, property, environmental and maritime safety, and Bosphorus being subject to one-direction passage in maritime traffic is essential in maritime traffic, the prohibition of passage of tankers above 200 meters during the night in aftermath of Nassia tanker accident, common implementation of employment of maritime pilots and towboats escort services in large vessels carrying dangerous cargo. On the other hand, the passage through Canal Istanbul, which is narrower and shallower than the Bosphorus, will be much more dangerous compared to the Bosphorus due to the higher flow.

The passage through Canal Istanbul, which is narrower and shallower than the Bosphorus, will be much more dangerous compared to the Bosphorus due to the higher flow.

Within the framework of the Montreux Convention, the freedom of passage of commercial ships through the Turkish Straits is conducted with the safety measures to be implemented and determined by the Republic of Turkey. The Republic of Turkey has been exercising this authority since July 20, 1936. For twenty-five years, there has not been any accident in the Bosphorus that caused human death and environmental disaster. This does not mean that it will not happen, yet the important thing is to reduce the likelihood of an accident, and take measures to minimize losses in possible accidents. While it is possible to solve this problem with a few additional safety measures (Istanbul, emergency response agency, tugboats stations etc.) that will have little cost to our country, it is quite wrong to search for solutions with a project like Canal Istanbul with high cost-full of negativities and can bear disasters as a consequence. When the weather and sea conditions in the Black Sea become severe, the ships want to enter the Bosphorus as soon as possible and receive guidance service upon entry. How can similar ships enter the Canal Istanbul

from the north when the weather and sea conditions in the Black Sea get worse, or how will they receive guidance from outside the port in bad weather conditions? These questions must be answered by all means. For the reasons I explained above, construction of Canal Istanbul on the grounds of reducing the danger in the Bosphorus will result in the transfer of the greater danger of same kind to Canal Istanbul, although it is not believable as it is.



Türker ERTÜRK
Retired Rear Admiral

In order for something to be a project, it must solve an issue or a problem. Turkey's attempt of Canal Istanbul, let alone solving a problem of Marmara Region, Istanbul or Turkey, it creates a threat to sovereignty, security and defense issues. It irreversibly kills the nature, ecological balance, water resources and urban structure of Istanbul. In other words, it is an initiative that creates thousands of problems, not solves them per se. This initiative is a monstrosity in every aspect.

It would be funny to say that for the Bosphorus, the narrowest part of which is 700 meters and the widest part is 4300 meters, an alternative has been created in terms of navigational safety by constructing a canal of 275 meters width.

The USA and the UK have always been disturbed by the Montreux Convention and asked for it to be amended. The USA, which has the strongest navy, wishes to discuss and amend the Montreux Convention, since the Black Sea is the only sea that the USA cannot

enter on free terms and with its all elements among all the seas covers three quarters of the world. The USA, which is a global power and controls the world maritime trade, would very much like the implementation of transit passage regime brought by III. Conference on the Law of the Sea and endeavours to convince Turkish politicians with various manners in line with these geopolitical objectives. As long as Montreux stands, it is impossible to have their 11 aircraft carriers, each weighing 100 thousand tons and submarines with nuclear warheaded missiles in the Black Sea.

In the Cold War era (1947-1990), Turkey did not allow the Black Sea to become an area of competition and conflict among pacts and great powers although Turkey was a member of NATO. This was possible thanks to Montreux Convention. If it is not for Montreux Convention, the Black Sea would become a sea of conflict and competition. Turkey will be damaged by such a situation to a great extent. Therefore, it is necessary to own up to Montreux Convention and it should not be brought to the discussion.

None of the justifications that the government has stated concerning Canal Istanbul are true. It would be funny to say that for the Bosphorus, the narrowest part of which is 700 meters and the widest part is 4300 meters, an alternative has been created in terms of navigational safety by constructing a canal of 275 meters width.

Nobody will pass through and you cannot force anyone. In addition to this, ship traffic in the Bosphorus has been on decline significantly due to the pipelines. The number of accidents has also decreased significantly as well. The last huge accident in the Bosphorus took place 26 years ago. Turkish Straits are privileged among all the straits in the world. This privilege is thanks to the Montreux Convention. Transit passage regime is applied in all straits of the world and nobody pays for it. If Montreux Convention is opened for discussion and hence amended, this privileged situation in favour of Turkey will change and transit passage system will be implemented. We will not be able to receive any money, and our sovereignty and security will be threatened very severely. ■



Summary



In the session, "Legal Framework and Security" moderated by 1st Legal Adviser Mr. Eren Sönmez, all of the speakers emphasized the following points:

- ▶ Montreux Convention ensured the security of Turkey and bringing it into discussion is risky for Turkey.
- ▶ Canal Istanbul Project might cause Montreux Convention to be opened for discussion as well as termination of the Convention.
- ▶ Traffic on Bosphorus is inconsistent due to justifications such as passage safety and economic income.
- ▶ Passage through the canal bears more risks than passage through the strait and it cannot be imposed as obligatory in legal terms.
- ▶ There has not been an example of constructing of a canal as an alternative to strait in any corner of the world.
- ▶ This very Project will serve for the geopolitical objectives of the USA.



2.2 Disaster Risk and Seismicity

Head of Earthquake Risk Management and Urban Development Mr. Tayfun Kahraman stated that they called the experts in their respective professions in order to discuss Canal Istanbul Project, and that they put forward their efforts to invite everyone without any discrimination; however the scientists supporting the project did not attend the workshop. In the session, impacts of Canal Istanbul in terms of disaster risk and seismicity are addressed.



Prof. Dr. Haluk Eyidoğan
İTÜ, Retired Lecturer,
Department of Geophysics Engineering

Canal Istanbul is wanted to be built despite earthquake-borne hazards that may occur during and after construction, and ground stability problems such as landslide and liquefaction. In the last 1987 years 37 tsunamis took place in Marmara and not any of the tsunami information is included in the EIA Report. There are three active faults in the project area and these are secondary faults. This information is also not included in the report. There is no further information regarding the faults of which drawings are included in the report, it is just drawing. Despite all these risks involved, we do confront with a rather unreasonable project considering the more population and construction accumulation in the city built around the canal and the risks that it will cause.

Scientific studies indicate that the probability of an earthquake with a magnitude of 7 or more over the next 30 years is 65%. In addition to this, this very risk increases by 2.5% each year. A tsunami that may arise during the earthquake poses a separate and significant danger. It is stated in the EIA report of the project that there are severe earthquake effects and tsunami risk.

As a result of geophysical and geodetic studies carried out in and around Küçükçekmece Lake in 2014 and 2016, an active fault was found that crosses the lake in the north-south direction and moves 5 millimetres per year. In addition, in geological, geophysical and geotechnical studies conducted along the canal route, faults were detected in 28 sections however the properties of these faults were not interpreted.

The ground in huge landslide areas on

the sea floor can also move without an earthquake. This situation increases the probability of tsunami. It is predicted that the water level in Küçükçekmece Lake, where the lagoon at its entrance will be destroyed with an earthquake-induced tsunami, will increase up to 3.5 meters and that the water level will reach 10 meters in the sea bottom landslide.

Scientific studies indicate that the probability of an earthquake with a severity of 7 or more over the next 30 years is 65%. In addition, this risk increases by 2.5% each year.

It has been calculated that approximately 11 tons of dynamite will be detonated with a single shot every day, and that a dynamite shot of this magnitude can generate earthquake equivalent energy of 3.8 magnitudes as seismic energy. These blasting works will take at least 4 years. In such a region where the earthquake and its effects are so visible and where the risks of loss of life and property will be enormous according to official data, priority should be given to preparing Istanbul for an earthquake and mitigation of risks. It cannot be understood what function a project like this canal will have been in Istanbul, which is confronting a major earthquake risk.



Prof. Dr. Murat Balamir
METU Retired Lecturer
Department of Urban and Regional Planning

There is a certain need to examine the Canal Istanbul proposal in two fundamental aspects with its planner view. This project

ignores the great earthquake hazard that threatens Istanbul. Secondly, it is beyond the rational attitude and scientific approach to examine an investment initiative of this scope and scale only with a limited EIA research and to disprove the project with an arbitrary method and transparency that is not rather certain.

With the resources to be consumed for Canal Istanbul, the risks of destruction and loss of life related to the Istanbul earthquake can be reduced to a large extent, and Istanbul can be established as a special example on a global scale by gaining a secure mega-city identity in the face of the earthquake.

After the Marmara Earthquake (1999), no systematic efforts were conducted for the necessary risk management in Istanbul, and initiatives that increased risks in many respects were carried out in an unsupervised manner. Open areas have been lost due to over-settlement and the risk mitigation target has been deviated by improper transformation attempts. Within the scope of precautions to be taken against earthquake hazard, mitigation of the risks arising from the spatial relations structure, which is at least as important as building safety, necessitates direct physical planning studies. Within the scope of Istanbul Earthquake Master Plan (IDMP, 2003), there are spatial risks that we had the opportunity to examine, such as emergency hospital services lacking according to their location, the risks posed by the industrial units that store hazardous materials, and the insufficiency of the infrastructure distribution system. In addition, measures to be taken regarding the possibility of losses in areas that may be exposed to special hazards such as landslides, liquefaction, flooding, and tsunamis were investigated. Likewise, vis-à-vis presence of countless risks posed by the spatial relations and neighbourhood

show risk reduction opportunities through planned arrangements and measures and displacements that each new large-scale physical development can take. Canal Istanbul project does not manifest such a thought and prudent approach to this end, but imposes a foreign and unfair physical arrangement on the macro form of Istanbul. However, within the scope of an investment of this scale, precautions can be taken against risks, the risks of destruction and loss of life related to the Istanbul earthquake can be reduced by large resources for Canal Istanbul, and Istanbul can be established as a special example on a world scale by gaining a safe mega-city identity against the earthquake.

The irrational discrepancies presented by the research processes and decision-making methods regarding the Canal Istanbul proposal are the subject of a second examination in terms of planning. In societies that adopt a life style faithful to civilized, democratic and scientific methods at this scale, comparing with the activities in terms of content and formality provides an opportunity to reveal what we are deprived of.

It is a pioneering planning process that such a project idea is born, defined, and supported in this scale. It is expected that a strategically important project idea should be born in a planning or security institution or in a think-tank, not by a single person. The idea is then submitted to senior management and maybe through establishment of expert group, opinions are taken from the senior management organ, and it is evaluated by the related professional organization, and perhaps a partial referendum can be applied. In the case that positive opinions are developed, planning works require the establishment of a special “Project Management Commission” in the second stage and the allocation of its special budget. The commission would prepare and have its own directive approved, assume the responsibility of the coordination of all planning, design, technical studies, finance and external service purchases, and carry out the studies transparently. The Commission establishes a comprehensive

knowledge bank on the subject and firstly completes the “capacity analysis” studies to determine the project area boundaries and its scale. At this stage another research to be applied should be long-term “social and technological developments analysis.” This research aims to determine to what extent the project will remain valid in the future. A “cost-benefit analysis” should have been the most comprehensive study that examined the validity of the project. Options should be determined, all economic and social values should be calculated, EIA study should have been a subdivision study under this umbrella. In this context, “threshold analysis” evaluating the points and times of the investment scale, and “coordination analysis” examining the input-output and timings of the activities should have been conducted. In addition to these, the location and timing of investments and physical applications should be determined by “non-returnability analysis” and the task of “unexpected conditions and risk analysis” should have been fulfilled. However, following all the aforementioned processes, “likelihood and feasibility” evaluations can be carried out. After these general evaluations, it is time to go into the details of spatial plans, first of all, a consensus should be reached on a “spatial strategy plan” and document. At this stage, considering the earthquake and climate change conditions; morphology, surface drainage, ground properties, micro-basins and infrastructure systems compatibility, infrastructure network centres, stations and main distribution system are then located. Thus, the macro form of the spatial plan, general settlement principles and the zone use program, zoning, densities, social profiles are determined.

Following the spatial preliminary determinations, special usage areas such as the locations of the main public service units such as hospital, school, security, transportation, car parks, communication, culture, industrial area, commercial and city centre areas, entertainment centre, campuses, and logistics uses would have been defined. In addition, the “green network” that constitutes the open spaces system, residential areas would be

determined according to the densities and construction types, these general design works would have been completed with an iterative planning process.

Design works at the lower level require methods of obtaining projects through urban and architectural competitions on the scales of the region, block and parcel. In these arrangements, principles, standard and type designs related to green networking and how the open space system meets construction will be developed. For this purpose, directives and regulations regarding the operational process will be brought to the agenda so as to complete the design works.

The public interest-seeking approach will have referred to the special methods to ensure that the values and rent created by the project remain in the public hands. The expropriation method applied during the establishment of the Australian capital in the 1950s is an early example of this. In this way of implementation, the areas envisaged in the first stage have been expropriated and the parcels defined following the plan have been subject to 99 years of construction and usage rights by the tendering method. At the end of this period, administrations retained the right to renew contracts, to bid again, or to expropriate structures and facilities constructed by the private sector.

In the example of Canal Istanbul, instead of letting the rent go into private hands, if the value is aimed to remain in the public hands and to prevent speculative activities, the immovables in the private property is expropriated and opened for reconstruction. However, the ownership of the immovable property and the long-term use rights provided in the plan are granted, thus the expropriation costs are ensured to remain at low levels. This value can be approximated to zero by granting the rentals, taxes and some exemptions of the expropriated lands.

After the period, re-lease and use rights can be recognized or, if deemed necessary by the operator, constructions and private investments can be expropriated by a

“Canal-City Commission” to be established. It is also possible to develop rental housing stock and urban facilities under the operation of the Canal-City Commission.

The main drawbacks of the Canal Istanbul proposal are the following: technical difficulties, environmental slaughter, unfair value distribution model, being away from physical planning methods and attempting to carry out this process in a non-transparent manner. The execution of a project of this scale with a process of public interest, and the definition of its scope and method, present that this proposal constitutes such a distant attitude far from the rational of planning.



Prof. Dr. Naci Görür

İTÜ, Retired Lecturer, Department of Geophysics Engineering Academy of Science, Founding Member

First and foremost, there is a sentence attributed to me even though I have not stated that sentence. I want to start by clarifying that issue. I did not pronounce a sentence such as “Canal Istanbul triggers the earthquake.” I think the canal will not trigger the earthquake, yet the earthquake will severely affect the canal.

Breaking of the fault beneath the Marmara will produce an earthquake of at least 7.2 magnitude and in this case, the area where the canal is located will be severely affected by the earthquake. The part of the canal, especially between Küçükçekmece and Marmara, is the weakest link in the chain and will be affected by at least 9 magnitude from the expected earthquake.

Despite the fact it is stated that there are active live faults on land along the canal

route, scientific studies have found out that there are faults related to the main earthquake fault in the continental shelf off the coast of Küçükçekmece. Some of these faults are active and at least 3-6 kilometres deep. This means that the place where the canal connects to Marmara has been broken and fragmented to a certain extent by faults. In other words, this is a zone of vulnerability. If this zone is subjected to an earthquake of at least magnitude of 9, this area, which has already been weakened, can cause great damage to the canal until Küçükçekmece lagoon. If the construction of the canal is decided by all means, the continental shelf off Küçükçekmece should absolutely be examined geologically and geo-physically before excavation starts. The probable impacts of these faults under the sea on the canal should be diligently investigated. Present data as of today are not adequate to make decisions.

The part of the canal, especially between Küçükçekmece and Marmara, is the weakest link in the chain and will be affected by at least 9 magnitude from the expected earthquake.

It would not be an exaggeration to define the area between Büyükçekmece and Küçükçekmece as “landslide hell”. Even today, there are visible landslides in this region. Mass movements that are to be caused by the expected earthquake will bring about much more serious problems. The landslide roots in this region may be related to the Çatalca Fault Zone, which lies to the west of the Büyükçekmece lagoon and extends in the Northwest-Southeast direction, including the above-mentioned faults in the sea. Severe mass movements that may occur on the slopes of the canal during the earthquake also induce the risk of carrying material into the canal and blocking the canal to this end.

The ground at the Marmara entrance of the canal is extremely weak. The sediments here mainly consist of soft, clayey, swelling, surging and dispersing units. A similarly bad ground is present at the entrance of the canal

to the Black Sea. It should be envisaged that engineering structures built on such floors may be subject to great damages during the earthquake. Here during the motion of seismic waves, soil amplifications, liquefaction, mass movements, collapses and settlements that may occur, can damage the canal.

The passage route of the canal is located in an area rich in groundwater aquifers. The canal will operate as a kind of drainage system and the aquifer waters will be discharged into the canal. As a result, the area for which the canal is planned to be constructed will be salted over time.

The canal project is not a random engineering project, but a project that can change the entire ecosystem in the region. It is a very sensitive and risky project. In this respect, all risks should be considered. Due to this feature, it can be extremely expensive engineering structure. Feasibility study should be done accordingly.

The canal project is not a random engineering project, but a project that can change the entire ecosystem in the region. It is a very sensitive and risky project. In this respect, all risks should be taken into account. It is an engineering structure that can be extremely expensive due to this feature. Feasibility study should be conducted accordingly.

Canal İstanbul is a risky project, of which lump sum much more than its yield considering its purpose of construction. Tanker passages through the Bosphorus can also be reduced by constructing oil and natural gas pipelines to be constructed on land. This is both much safer and cheaper. It is safer for the country as well since it does not affect the Montreux Convention. Istanbul is awaiting for an earthquake, safety of life and property of hundreds of thousands of people are under threat. Republic of Turkey should exert all its efforts to prepare Istanbul for earthquake. A new canal can save several historical artifacts in the Bosphorus, but the earthquake preparedness will save both the life of hundreds of thousands of citizens and all historical artefacts in Istanbul.



Nusret Suna

TMMOB İnşaat Mühendisleri Odası
İstanbul Şube Başkanı

It is very tiresome to talk about such a flippant project like Canal Istanbul and to explain to the competent authorities why it should not be conducted.

The title of the project's EIA Report is as follows: “Canal Istanbul Project (including Coastal Structures [Yacht Ports, Container Ports and Logistic Centres], Sea Area Recovery, Bottom Sweep and Concrete Plants). As can be understood from this title, this project is the project of making the region a construction site of the construction sector as a whole, together with the third bridge, the third airport and the Çanakkale Bridge. Canal Istanbul is not a waterway project.

While it is declared by the government that 1 million residences in Istanbul are not safe and approximately 10 million residents live in earthquake-irresistant residences, approaching projects such as Canal Istanbul, which will double the population density, is a burden to the city which the city cannot endure.

The rate of education facilities, which has been transformed into an earthquake-safe structure, is 20%, not 80%, as stated in the official statements. Students' and our children's lives are in danger.

The number of assembly areas that are of vital importance during the earthquake is very limited. An overwhelming majority of existing assembly areas are completely far from meeting the basic needs.

The rate of education facilities, which has been transformed into an earthquake-safe structure, is 20%, not 80%, as stated in the official statements. Students' and our children's lives are in danger.

The Canal Istanbul Project will divide Istanbul into three and 8 million people will live on an artificial island. The imprisonment of such a large population in Istanbul, which is under the threat of earthquakes, will cause irreparable consequences for earthquake and disaster studies. The population living on the island will be twice as much under danger by the earthquake. Even in the current situation, the disaster response possibilities of a city, whose earthquake assembly areas and transportation routes are destroyed, are condemned to the unknown, how a divided city will react after the earthquake is ambiguous as well.

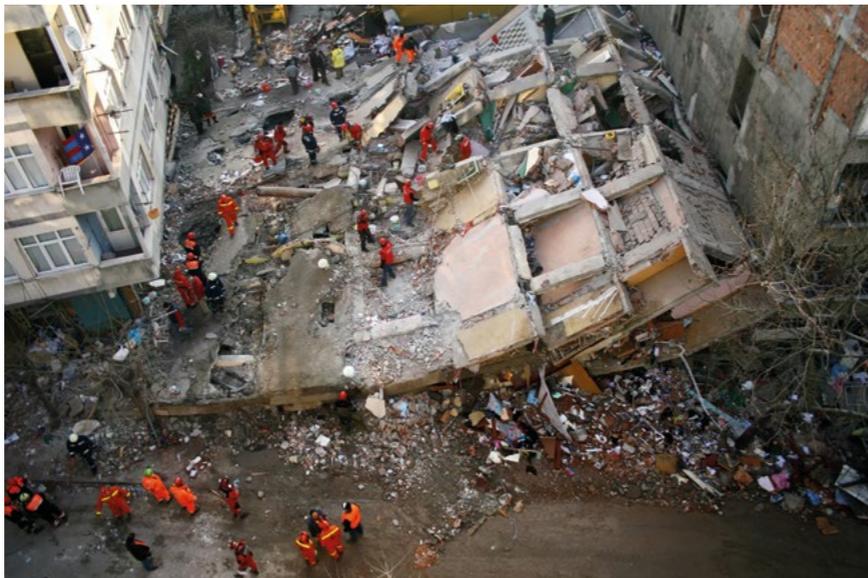
The burden of Canal Istanbul Project on city traffic has not been calculated yet. Canal Istanbul is expected to increase the current traffic load by an estimated 10 percent. However, due to the residential and business centres planned to be constructed in the region, the transportation load will increase, and especially in TEM and E5 there will be a noticeable increase in vehicles.

Relocation of large structures such as Istanbul Thrace Railway, TEM Highway, E5 Highway, other important highways, Terkos-Alibey historical water gallery, dozens of important drinking water transmission lines, Ataköy waste water collector, which are located in the places where Canal Istanbul is likely to pass through will cause serious problems in urban life.

If the budget planned to be allocated to Canal Istanbul, is spent on earthquake precautions, urban investments, infrastructure, transportation, improvement of streams, protection of historical values and increasing the number of green areas, Istanbul will become a more liveable city. The money to be spent on Canal Istanbul will make the residents of Istanbul confront new problems. Concerns regarding the fact

that the project will cause a burden of 35 billion liras to the budget of the Istanbul Metropolitan Municipality and naturally lead to disruption of municipal works have a logical basis. Worry should be directed to the fact that poverty and deprivation caused by this burden will be on the shoulders of the people of Istanbul. ■





Summary

In the session, "Disaster Risk and Seismicity" moderated by Istanbul Metropolitan Municipality, Head of Department of Earthquake Risk Management and Urban Development, the highlighted statement is "Earthquake will have a severe impact on the canal." The following consequences are derived after the session:

- ▶ The area in which the project is located is expected to be most severely affected by the earthquake.
- ▶ In a possible earthquake, the risks of quake, displacement, mass movements and liquefaction in the canal area are quite high.
- ▶ Due to the fact that the canal project is prepared as a project in the earthquake zone and the population that it will bring will increase the existing risks.
- ▶ A possible earthquake can trigger landslides and cause allusions.
- ▶ A comprehensive database is required for accurate analysis of earthquake risks.
- ▶ The true crazy project is to prepare Istanbul for an earthquake and not to construct a canal.

2.3 Spatial Planning, Urban Development and Cultural Heritage

In Canal Istanbul Workshops' session, "Spatial Planning, Urban Development and Cultural Heritage", moderated by Istanbul Metropolitan Municipality Deputy General Secretary Dr. Mehmet Çakılcıoğlu, probable impacts of Canal Istanbul Project on urban development and spatial planning, cultural and natural heritage are addressed.



Prof. Dr. Azime Tezer
İTÜ, Department of Urban and Regional
Planning

The natural heritage sites in Istanbul have an important role in terms of sustainable urbanization. Therefore, determination of the spatial priorities of Istanbul is essential for a sustainable urban development.

In the Canal Istanbul Project Environmental Impact Assessment Report, impacts of the canal on the ecosystem cannot be clearly monitored. While the opinions of the institution regarding this issue contain statements such as "there will be an impact", the ecological impact context of the subject is not in line with the comprehensive report content explaining the components of the ecological structure.

Marina zone south of the project area indicates that this zone will appeal to the upper income level.

Water resources and forest areas are essential to improve water and air quality. These problems should be solved by spatial planning. At the point reached, there is a perception that Küçükçekmece Lake cannot be protected. However, Küçükçekmece Lake can be protected by ecological repair techniques and water quality can be improved by ecological restoration, since it is already a natural lagoon per se.

Within the scope of Canal Istanbul Project, 38 kilometre-long coastal filling area is planned. However, this filling area will already spoil a significant part of Istanbul's only natural coastal ecosystem. During the transportation of the incredibly large excavation material to be excavated during the construction of the Canal Istanbul Project and the creation of filling areas, air

pollution to be formed will have an impact on Istanbul as a whole.

United Nations Secretary-General Antonio Guterres stated that healthy ecosystems can balance the temperature increase due to climate change by 37%. Therefore, sustainability of natural ecosystems of Istanbul is essential within the scope of climate change adaptation policies.

The priority of a liveable Istanbul should be fresh water resources and air quality. Protecting fresh water resources, improving air quality and ensuring the sustainability of these areas are also important for the European Union harmonization process.

Spatial policies related to "Sustainable Development Goals, Adaptation to Climate Change and Mitigation of Natural Disaster Risks" have priority in global and UN Habitat meetings. Therefore, these policies should guide spatial planning for the sustainable development of Istanbul.

Finally, it is uncertain for whom the real estate investment areas around the canal are planned for. Marina area south of the planned area indicates that this area will appeal to the upper income level.

In addition to this, the real estate sector can be planned in a sustainable way by creating different development focuses outside and around Istanbul, and Istanbul can be prevented from becoming an agglomeration area.



Prof. Dr. Hüseyin Tarık Şengül
METU, Lecturer - Department of Political
Science and Public Administration

The plan, prepared by Istanbul Metropolitan Municipality with over 600 experts between 2004 and 2008, does not include any projects such as third airport, third bridge and New Istanbul.

However, again, Istanbul Metropolitan Municipality's currently obsolete Housing Inc. prepared two separate reports targeting the north of Istanbul to a great extent with the experts from abroad. The first study was conducted by the Regional Plan Association, headquartered in New York, headed by Robert Yaro. The other study was carried out within the master's program in the Urban Design Department of the University of Michigan.

A government that frequently voiced its claim of establishing itself outside the West, independent of the West, the Canal Istanbul Project, which is inspired by Western-style project fetishism and funded through transnational borrowing is a reflection of the ideological dilemma of the government.

In 23-page long "Towards National Development Plan entitled" study prepared under the chairmanship of Yaro stated the need for large-scale projects for the development of Turkey and proposes development focuses for some certain regions.

In this context, the suggestions developed

for Istanbul mostly target the north of Istanbul. One of these projects is the New Istanbul project with a population of 1 million. In addition, the report suggests the use of external loans by pointing out the public-private cooperation and the method that Ottomans used for the financing of these projects. Another remarkable point is the similarity in terms of the method and content of the Regional Development Association's proposed development strategies for the United States for 2050 and Turkey for 2023.

In this framework, the suggestions developed for Istanbul mostly target the north of Istanbul. One of these projects is the New Istanbul project with a population of 1 million. In addition, the report suggests the utilization of external loans by pointing out the public-private partnership and the method that Ottoman used for the financing of these projects back then. Another remarkable point is the similarity between the Regional Development Association of the development strategy for 2050 proposed by the United States, Turkey's 2023 strategy in terms of method and content.

The Michigan Project, financed by Istanbul Metropolitan Municipality Housing Inc., proposes a series of common projects for Northern Istanbul, such as Canal Istanbul, New Istanbul airport and cruise port. Although the specific locations proposed are different, the Michigan study appears to be an important inspiration to the projects implemented today.

The point to be noted here is the preparation of two studies that produce decisions that will completely deactivate this plan through an organization within its body on the same date against a plan which is approved by Istanbul Metropolitan Municipality's own council. An assessment should be made by avoiding the ease of considering the US-based Regional Development Association and the University of Michigan study as part of international conspiracy.

It is understood and the decisions of Master Development Plan prepared by Istanbul Metropolitan Municipality, Istanbul

Metropolitan Planning do not meet the great project fetishism expectations present in power circles in terms of Istanbul. The plans which are prepared by these two organizations are an expression of the desire to meet this expectation and use Istanbul as the engine power of capital accumulation and fundraising processes through large projects.

In addition to the economic and ecological dimensions of the Canal Istanbul Project, it is necessary to make an assessment on the cultural and ideological level. A government that frequently voiced its claim of establishing itself outside the West, independent of the West, highlights a Western-based large-scale project and with a financing model based on transnational borrowing. In this sense, Canal Istanbul also points to an ideological impasse.



Prof. Dr. İclal Dinçer
ICOMOS Turkey National Committee Head,
Lecturer - YTÜ Department of Urban and
Regional Planning

Archaeological heritage is a sensitive and non-renewable cultural resource; it is essential that it does not disappear and is protected on site. To achieve this, land use decisions should be changed and the move of the archaeological site to another location should not be considered. While planning, protection of the environment and nature should be at the forefront, and it should not be forgotten that nature is the most important heritage for the future, and a quality and liveable urban environment should be created. In this sense, a "bio-cultural understanding" is developed where living spaces of living creatures are determined and protected by humans. Efforts should be exerted to accommodate

an understanding of cultural landscape that eliminates the artificial distinction between conservation and innovation.

A 1 million Yenişehir settlement will emerge. Canal Istanbul is a zoning project for the survival of Istanbul Airport.

It is even included in the EIA Report, where the Ağaçlı shores in the Black Sea contain even more ancient data than the Yarımburgaz Cave. However, this region has not been declared archaeological site. The region will stay under the filling to be made with the waste from the excavation of the canal and it will be destroyed.

In the EIA Report, it is stated that Rregion 1st , 2nd and 3rd degree archaeological sites located in the center of Küçükçekmece will be affected to a low degree. However, this is not possible. These archaeological sites are located at the entrance and exit points of the canal where large ships and tankers will pass through. Therefore, they will be adversely affected by ship traffic on the canal.

Similarly, in the EIA report there is no assesment regarding how the new settlements around the canal zone will affect the region. Therefore, the revision of the EIA 1/100.000 scale plan regarding the zone that covers the banks of the canal is completely inconsistent with the Master Plan for Istanbul.

As can be seen from the examples of the world, settlements cannot be located so close to the perimeter of such a canal. While debates regarding Canal Istanbul continue, a 1 million Yenişehir settlement will emerge. Therefore, the revision is a zoning project for Istanbul Airport to survive.

In the revision of the Environmental Plan, there are plan decisions such as "Special Project Area" which are not explained, and uses such as Çekmece Nuclear Research and Education Center regarding which there is no certain place to move it. These ignore the principle of the plan being public

and raise the public costs very much.

All infrastructure of Istanbul, which was established on the east-west axis, will be interrupted in the north-south direction and 11 bridges and tunnels will be constructed in this framework. In addition to the costs of these bridges, which have to be built very high in order for the ships to pass through, there will be their destructive effects on the environment. These bridges and tunnels will destroy the entire bio-cultural environment.

The Environmental Plan revision is a bad imitation of approved plan of the metropolitan which was approved in 2009. It is claimed that the vision and goals for the 16 million metropolitan regions will be realized in this area. As suggested by Istanbul's 1980, 1995 plans and the Environmental Plan, approved in 2009, the development model, consisting of a linear macro-form and compact sub-regions, is the most ideal for Istanbul. However, this model was disrupted by the third bridge and third airport decisions.



Mücella Yapıcı

TMMOB, Chamber of Architects
Istanbul Branch

Canal Istanbul Project proposes to connect the Marmara Sea to the Black Sea by proceeding along a 45-kilometer route following the east of Küçükçekmece Lake, Sazlıdere Dam and Terkos Dam. Connecting these two seas, where the marine ecosystem is extremely sensitive and has a high level of pollution, is neither scientific nor serving for the public interest. In addition, the project will affect the whole Thrace region and the environmental and social impact area specified in the EIA Report will never be limited to the envisaged area.

The fact that Istanbul's upper scale plan is made in an eclectic manner prevents the observation of the cumulative effects of the projects planned in the city. Approaching Canal Istanbul Project as if it was a stand-alone project and making the impact assessments of the project only through this project is a non-scientific method that lacks a holistic perspective. The third airport, third bridge and Canal Istanbul Projects, which were announced to the public many years ago under the name of "crazy projects", are all integrated projects. Considering all these projects, north of Istanbul is under the impact of a lot of negative environmental burden than it can endure. Istanbul has been dismissed from being a liveable city and has been presented to the service of global plunder with all its vital cultural and historical assets in the name of short-term economic and political interests.

Called "madness" even by the high level officials, this initiative will primarily affect Marmara, Thrace, Black Sea regions and their mainland, coastal areas and seas and the entire geography in ecological, economical and socio-politic terms irrevocably, while all the citizens of Turkey, mainly from Istanbul exert their efforts to communicate their objections to EIA Report, and Istanbul Province European Side Reserve Construction Area 1 / 100,000 scale Environmental Plan, putting all the area around the canal under the name of "New Istanbul" for construction, has been suspended and EIA Reports issued by the ministry became null and void.

Istanbul has been dismissed from being a liveable city and has been presented to the service of global plunder with all its vital cultural and historical assets in the name of short-term economic and political interests.

Terkos Basin is the most strategic underground water tank for life. It faces the danger of extinction with the canal project. Dividing European Side into two and talking

about social and geographical effects are an act of fraud; and an effort to cover up the murder.

The 1 / 100.000 scale plan of this project, which affects the whole of Istanbul and even the whole country, is segmental and includes only the region where the canal is. It lacks a holistic understanding of planning. Therefore, holistic effects are intentionally overlooked; scientific community and society are deliberately deceived to this end.

In Canal Istanbul Environmental Impact Assessment Report, it is stated that migratory birds can learn new migration routes. In the same report, there are statements that fishing boats will not be able to enter the canal and it will only be open for the to the passage of tankers.

We confront with a proposal of life-threatening and devastating destruction project that is contrary to all national and international legal rules, conventions, public interest, scientific, technical and urbanism principles, and climate change criteria, especially the constitution and legal legislation. In addition, this project is the product of a narrow and elitist point of view that disdains nature, looks down from the top in terms of settlement practices. Canal Istanbul Project should be abandoned immediately and dropped from the agenda not to be pronounced again.



Dr. M. Sinan Genim
Architect

Canal Istanbul Project and similar projects were brought to the agenda many times during the Ottoman period. The question to be answered is what kind of strategic priority and necessity of the Canal Istanbul Project has. Therefore, while discussing this project,

more free thoughts and awareness than ever before should be taken into account.

There is not any national anthem in the world starting with the word "Fear not". Yet, we are still trying to be disciplined with fear and we endeavour to reinforce our discourses with fear. It is not an acceptable method especially for scientists to use fear as a tool for the realization of a thought. Those who inject fear into society should be particularly concerned about the widespread effect of fear on children and adolescents and their passivization.

It is not possible to accept the compression of any thought and project into the narrow space between black and white. There is a very large field of grey thinking between these two colours. One-word assumptions such as "yes" or "no" do not allow the broad field of thought and expression of our age to narrow and nobody to develop different thoughts. Even if everyone thinks of the same thing, a society that no one thinks will emerge, which causes the country to become poorer in every respect. During the different periods of the Ottoman Empire, many projects similar to Canal Istanbul were brought to the agenda. One of these projects was the canal project aiming to connect Golden Horn to Black Sea through Kağıthane Stream which was presented to the palace in 1890.

As the successors of an empire that has the ability to think and act ahead of its era, such as the Black Sea-Caspian Canal, which aims to unite the Don and Volga rivers starting from the 16th century and the construction of a canal between the Red Sea and the Mediterranean, I am regretful that the debates about Canal Istanbul are compressed into a narrow area.

I am of the opinion that it is wrong to consider the similar leaps of countries as a support to political initiatives. It think that the presentation of opinions by the scientists not by creating a single point of view or fear, but with a broader perspective will prove fruitful for the evaluation of large public mass regarding the subject.



Yiğit Ozar

Association of Archaeologists
Istanbul Branch, Chairman of Executive
Board

The Canal Istanbul Project is planned to be constructed in an area of archaeological ruins and a very important area for cultural transitions. Canal route and its surrounding reserve area as Professor Mehmet Özdoğan has described, has a diverse archaeology inventory, starting from prehistoric times, as a route crossing from Asia to Europe and connecting Mediterranean cultures to the Black Sea.

An important part of the archaeological site that covers the surroundings of Yarımburgaz Cave overlaps with the canal route.

Yarımburgaz Cave, located north of Küçükçekmece Lagoon Lake is one of the oldest findspots of Turkey with Palaeolithic era layers. According to archaeological excavations, the beginning of the settlement in the cave is dated to 400 thousand years ago.

Flint tools indicating the presence of temporary camp sites dating to the Mesolithic period (between 12 thousand and 7 thousand BC) in the dune area on the Black Sea coast near the Ağaçalı village. Our knowledge of these hunter communities is limited, since no archaeological excavations have yet been carried out in these areas which are identified as a result of surveys. The coastal landscaping with these important data was determined as “Coastal Facilities Area” in the plan change and opened for construction. Since the impact area that the Environmental Plan and the EIA Report address is different, the

tree dunes are not subject to the impact assessment in the EIA Report according to their archaeological importance.

Yarımburgaz Cave shows that the region is an important area not only for the spread of the primitive man, but also for the transfer of the lifestyle of farmers of Neolithic communities to Europe. Findings that are dated to Neolithic period have also been found during the recent excavations in Bathonea. An important part of the archaeological site covering the area of Yarımburgaz Cave coincides with the canal route.

Another important archaeological data that shows that the region has been an important transition area throughout history is Via Egnatia, the construction of which started in the 2nd century BC. Via Egnatia, the military route of Rome, which connects the city of currently named as Durrës on the coast of Albania and Istanbul, passes through this region. Archaeological traces in the canal route and reserve construction site, and the remains of the settlements on the road can be seen.

One of the ancient settlements known to be located on Via Egnatia is Rhegion at the entrance of Küçükçekmece lagoon. As a result of the archaeological excavations carried out between 1938 and 40, the remains that are thought to belong to a palace surrounded by a wall dating to the 5th - 6th century AD belonging to the ancient settlement. As of today, the part which is the first degree archaeological site has not been brought to the city life yet. The sections designated as 2nd and 3rd degree archaeological sites are in construction. The EIA Report has identified a low impact for this archaeological site, which will remain at the Marmara entrance of the canal. However, as Professor Iclâl Dinçer stated, due to the location of the canal as it will be at the entrance of Marmara Sea, the risk arising from the traffic of heavy tonnage ships is not evaluated.

The natural conditions that create a safe area for the ships enabled the lagoon lake to function as a port in ancient time and

this situation affected the settlement system around the lake. In the settlement areas on the opposite shore of Rhegion, on the Firuzkoy peninsula, in excavations that are uncovered by Küçükçekmece Lake Basin Bathonea Excavations, various ruins have been documented from the Neolithic period to the Ottoman period. It is understood that the area around the lagoon had intense settlement in the ancient time. This area is an area that should be preserved with the ruins, lanterns, cisterns and many monumental structures and presented to the society as an archaeological site. During the work of the excavation team, traces that may have belonged to the remains and wrecks on the lake floor were also identified. 200 hectares of this area, which was declared as a 1st degree archaeological site in 1156 ha in 1991, was first, reduced to 3rd degree archaeological site in 2010 and then it was removed from the archaeological site. The dedicated areas of Istanbul University were then allocated to 2013 TOKİ through netting and it was intended to open up to construction. However, as a result of archaeological drilling excavations, archaeological potential of the areas previously dismissed as archaeological site was then re-assessed and consequently, a certain part of the area in question was declared as archaeological site again. In the current situation, Bathonea settlement is partially protected with its parts which are 1st and 3rd degree archaeological sites. A part of certain parcels between the 1st and 3rd degree archaeological sites that are known to have remains are dismissed as archaeological site, hence they do not have the status of legal protection. In the 1 / 100.000 scaled Environmental Plan Amendment, as for these parcels that have been dismissed as archaeological sites, while the university area legend was opened for construction within the reserve construction areas, the remaining parts of the archaeological site are shown as “archaeological park”.

Filiboz Viranlığı, which is on the shore of Sazlıdere dam, will be directly affected by the canal project.

In the ancient settlement of Spradon, where excavations were carried out in 2010 by the Istanbul Archaeological Museums, the remains dating to the Roman, Byzantine and Ottoman periods were identified. This archaeological site, which was heavily destroyed by treasure hunters, remains within the reserve construction area. The boundaries of the area, which was declared as a 1st degree archaeological site by the Conservation Board in 2002, were expanded due to the archaeological data documented by the Istanbul Archaeological Museums. The pressure of TOKİ, which has projects in the region, has occurred. By instrumentalizing a discussion on the ancient name and settlement type of the site, pressure was imposed to change their degrees and borders in favour of construction. As it is today, an “archaeological park” function has been proposed for the existing archaeological site boundaries in 1 / 100.000 scale Environmental Plan Amendment. The 1st degree archaeological site of Filiboz Viranlığı is an archaeological site where we do not have information because archaeological excavation works have not been carried out. It will be directly affected by the canal project with its location on the shore of the Sazlıdere dam. We can understand from the ruins, maps and archives there were villages and farms in the region during the Ottoman Period. Resneli Farm 2nd degree archaeological and historical site area is just one of the areas reflecting the settlement system of the region in this period. Just like Daye Hatun Farm known to sell fodders as in bales. The Sazlıdere Mukaata of the Sultan Beyazid-i Veli Foundation can be cited as a reason for the settlement texture in the region to remain rare and to preserve its rural character. The foundation has annotated the use of Sazlıdere meadow as pasture.

Providing intercultural connections, this geography has also been an important area for the external defense of Istanbul throughout history. For example, it is known that the wall of Anastasius (AC. 491-518) extending from Çatalca to Silivri was built further west of the Canal route. It is thought that the ruins in the area where the Sazlıdere, which is within the scope

of the Canal Istanbul Project, meets the lagoon lake may also belong to a Byzantine castle. During the Second World War, the region was fortified against the dangers that might come to Istanbul from the west, with blockhouse, trenches and supply lines. Considering factors such as field of view and geological structure, none of them were positioned randomly and they were planned to form a line. In the EIA Report of Canal Istanbul Project, it is proposed to move 9 of the blockhouses belonging to this holistic system.

Cultural assets are a whole with where they were constructed and are present. We need to be able to protect cultural assets together with geographic and human elements without objectification.

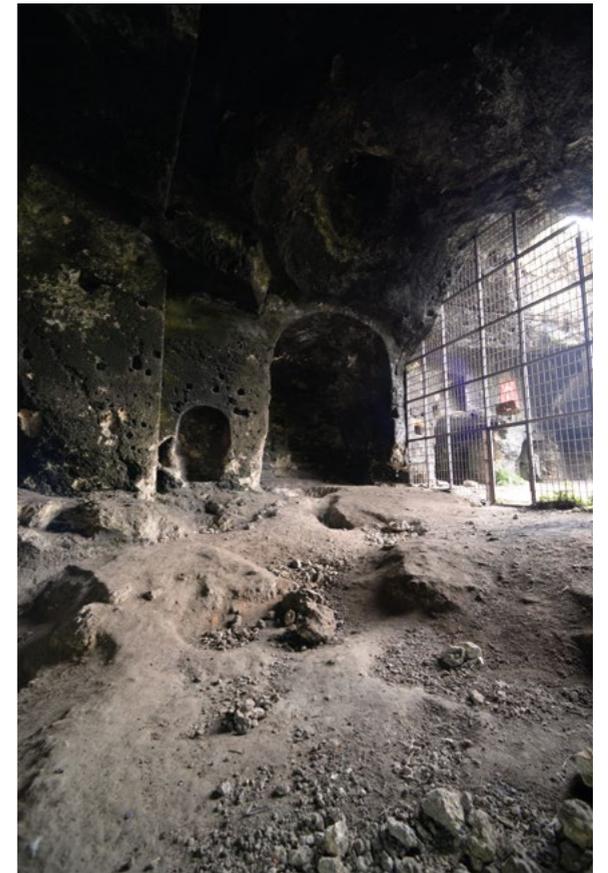
It is stated that archaeological sites within the reserve construction area will be preserved as an “archaeological park” in 1 / 100.000 scale Environmental Plan Amendment. However, as we have seen in the examples of Bathonea and Spradon, the boundaries of the archaeological sites have been determined under the pressure of construction. There are discrepancies between the existing site boundaries and the actual boundaries of the archaeological sites. As such, the “archaeological park” function determined according to the existing site borders is not sufficient to protect these areas from construction.

In addition, we need to consider how the construction process will affect the cultural assets remaining in the canal and reserve construction area outside the construction borders. Considering the vibrations caused by applications such as passages of heavy tonnage construction machines, penetration of deep piles, and landslide risks caused by deep excavations, it is not possible to define the impact of the project on cultural assets in this environment as low-scale. Preparation of Canal Istanbul EIA Report had been conducted by a company

named Regio, and the focus was only on 24 registered cultural heritage assets on the route in archaeology section, other cultural assets and potential archaeological sites were ignored. All of these cultural assets from different periods, from Yarımburgaz Cave to Florya Sea Mansion, were evaluated by only 1 archaeologist with a 4-day field study and desk work.

In fact, the diversity of the cultural assets inventory of the region requires different areas of expertise and a 4-day field study for the detection of archaeological sites is inadequate. A deep survey is required and this requirement is also expressed in the EIA Report. In addition, the opinions of the scientific research teams which are and working and previously worked in the region were not received and the current scientific knowledge was not fully reflected in the report. Finally, as stated in the EIA Report, it is a rather absurd proposal to “move buildings such as historical bridges, roads, blockhouses and bastions through international practices such as documentation, protection, moving to another location and on-site exhibition as it is in Hasankeyf project” example. Cultural assets are a whole with where they were built. We need to be able to protect cultural assets together with geographical and human elements without objectification. ■

YARIMBURGAZ CAVE



GOLDEN HORN - BLACK SEA CANAL PROJECT IN THE PERIOD OF SULTAN ABDULAZİZ



MEDITERRANEAN - RED SEA CANAL PROJECT

Summary

In the session “Spatial Planning, Urban Development and Cultural Heritage” moderated by Istanbul Metropolitan Municipality Deputy General Secretary Dr.Mehmet Çakılcıoğlu, the most important highlight is that “holistic impacts of the project are overlooked deliberately”. While the priority for a liveable Istanbul is the preservation of fresh water resources, air quality, cultural landscape and sustainability of ecosystems, these priorities were ignored in the project. The other important statements of the session that have been emphasised are the following:

- ▶ The region of the project is most severely affected by the earthquake
- ▶ Yavuz Sultan Selim Bridge, Istanbul Airport and Canal Istanbul are integrated projects. The Canal is a zoning project for the survival of Istanbul Airport.
- ▶ The EIA Report of the Canal Istanbul Project cannot adequately identify possible impacts of new settlements and archaeological remains.
- ▶ It is against planning practices that the revised 1/100.000 scale Istanbul Environmental Plan covers only the region where the canal is located.
- ▶ The model consisting of linear macro-forms and compact sub-regions in the 1/100.000 scale Istanbul Environmental Plan approved in 2009 is the most suitable development model for Istanbul.
- ▶ In order to protect archaeological heritage sites, land use decisions need to be changed, rather than moving them to another location.
- ▶ It is envisaged that Küçükçekmece Lake cannot be protected.
- ▶ Filler areas planned on the Black Sea shores will destruct the about 9 thousand years old archaeological sites which are on the sole natural coastal ecosystem of Istanbul.

2.4 Environmental Dimension: Agriculture, Climate and Ecology

In Canal Istanbul Workshop, in the session "Environmental Dimension: Agriculture, Climate and Ecology" moderated by Istanbul Metropolitan Municipality Head of Department of Neighbourhood Units and Food, ecological impacts and impacts on the climate and agriculture are addressed in a detailed manner.



Prof. Dr. Doğan Kantarcı
Istanbul University Retired Lecturer
Department of Soil Sciences and Ecology

Environmental impact assessment has not been conducted in the EIA Report. There is an inadequate and controversial project in many aspects. Istanbul Airport has caused irreversible destruction of grasslands, agricultural areas and fisheries, as well as a large forest area. If Canal Istanbul is constructed, it will also result in the destruction of agricultural, grassland and forest areas and fisheries.

In 20 years between 1983-2003, with the cessation of support to farmers, cultivated areas decreased by 8.15% and agricultural production decreased by 12.8%. However, the quality of agricultural fields and pastures has not changed and forests continued to produce water. Despite the protective provisions of the constitution, zoning of the agricultural areas, pastures and forests for construction and plan changes made for establishment of new settlement areas will cause irreparable damages.

There are severe challenges in the operation of the new airport due to the ground properties as well as the effect of precipitation and storm. There is a strong probability that this place will turn into a ghost airport. Another important point is that the village people whose livelihoods are destroyed will have to migrate from this region. Considering these two phenomena, selling the land around the canal to the foreign nationals and organizations is an occupation method. Turks, who are the real owners of the property, will be forced to migrate and a multinational region will be created.

Separating Istanbul from Thrace with a canal is an old US project that has been

expressed since the 1950s. This canal means leaving Thrace and the people living there into the hands of an enemy invasion. The project leaves our troops to support Thrace without any support in place. Also, according to the Montreux Convention, trade ships cannot be banned from their passage through the straits. However, warships in the scales of the planned canal can pass through the canal. It is the security of our country that is in question.



Murat Kapıkıran
TMMOB Chamber of Agricultural Engineers
Head of Istanbul Branch

The ecological consequences of the Canal Istanbul Project invite a major disaster. The intense construction raid on agricultural lands will increase considerably. In the last 50 years, the agricultural lands have decreased by half in Istanbul. The transformation is carried out in agricultural areas.

Secondly, the turbidity that will occur in the Black Sea will advance to the middle of the sea and cause a great deal of marine loss. The jetty to be constructed in the Black Sea will cause the current in the Black Sea to turn towards the canal. Consequently, organic pollution will begin in Marmara and the oxygen level in the Marmara Sea, which is already dying, will decrease further.

Another important point is the balancing at sea salinity level will directly affect the flora and fauna. It is quite wrong and incomplete to consider that it will affect only a few districts. In this sense, the project will adversely affect the ecology of an entire geography.

Despite the protective provisions of the Constitution, the region has been opened for reconstruction. A total area of 13,308 hectares is under destruction. These areas correspond to 4 Belgrade forests.

While the agricultural and forest areas are destroyed irreversibly, the livelihood of the villagers has been disappearing and the land of the region is abandoned to foreign nationals.

The EIA Report, which should analyze the problems we will encounter in case of the construction of Canal Istanbul Project, does not contain a single impact assessment in this regard, only the current situation is analyzed. The microorganisms in the environment are at least as valuable as humans, and all such projects show us that we need to transit from a human-centred understanding to an ecology-based understanding. Canal Istanbul has no ecological sensitivity. Filler areas to be created up to 25 meters deep will destroy the components of marine ecosystems.



Prof. Dr. Murat Türkeş
Boğaziçi University,
Climate Change and Policies
Implementation and Research Center

First of all, it is necessary to address the EIA Report. It is full of unscientific statements, many important topics have not been addressed and there is not a modelling that is present. It is not possible to comment on it, since a modelling study has not been conducted.

The changes created by large-scale projects on land use are strong enough to affect the small-scale climate (microclimate) in the region and then the regional climate.

Therefore, all the rural properties such as physical, climatic, biological, ecological, etc. will be replaced by urban properties.

The temperature of the cities is 1 to 3 degrees Celsius higher than the rural / semi-rural areas around them. The impact created by the urban heat island is not just a climatic effect. This also changes the city's most important thermodynamic properties, such as pressure differences and winds. Changes in values such as land use, humidity, temperature etc. in the Canal Istanbul Project and the formation of additional heat sources will cause the region to turn into an urban heat island. Green areas trapped in an urban heat island will cause formation of dense fog. The EIA Report does not address such important issues by any means. A project of this scale cannot be conducted without examining large-scale pressure and wind systems and modelling how they will change.

Green areas trapped in an urban heat island will cause formation of dense fog.

The title of "Conducting Detailed Field Studies and Studies of the Selected Route" in the EIA Report is completely fabricated. The report is limited to the fact that how the geo-morphological features in the new geography will be addressed. In summary, it is a due diligence report, no real environmental impact assessment has been carried out. The possibility of fog formation around Canal Istanbul and the third airport and its increase over time is rather strong. The negative effects will be perceived even more as soon as the project is started.

Canal Istanbul Project will destroy agricultural production around Istanbul. A society is in need of food sovereignty. Food consumption depending on imports is not right. Thanks to the project, 1,500 hectares of pasture land will be destroyed. A huge population will come here. Import food consumption will continue to feed this population. This project will inflict a heavy blow to terrestrial and marine agriculture. The field studies of the selected route are inadequate and unscientific, the impact

assessment method is wrong, the impact factors are lacking. In addition, the geology of the project impact area has not been studied.



Dr. Ümit Şahin
Sabancı University
Climate Studies Coordinator

Major interventions to nature such as Canal Istanbul are extremely wrong in terms of the effects of climate change. At a time when climate change is turned into climate crises, Turkey has to pursue active and constructive policies as required by UN Framework Convention on Climate Change that Turkey is a party and Paris Agreement signed by Turkey. If we do not act very fast and maintain the understanding of economy based on fossil fuels as it is today, the temperature increase will exceed 1.5 degrees in 2030 and 2 degrees before 2050. By 2050 the Arctic will become an open sea and sea levels will rise at least half a meter. Indications show that temperate climates in which Turkey is present as well will become more arid and droughty, will desertified rapidly, oceans will be acidified and coast will be flooded. Humanity has never encountered such high levels of carbon dioxide throughout history and has never lived in such a hot climate.

Political decisions need to be integrated with climate policies and harmonization should be established among sectors with high green gas emission such as energy, transportation, housing, industry and policies regarding water, food, natural protection in order to ensure compatibility with halting the target of climate crisis. As a mega project and a harsh and large-scale intervention on nature, Canal Istanbul does not match neither with climate policies nor

with the objectives of protecting nature and repairing ecological destruction nor with the perspective of carbon-free, nature and climate-friendly future that we have to develop.

Through three concepts and principles, one can explain why Canal Istanbul Project is poles apart with the climate policies that should be followed by Turkey along with the rest of the world. These concepts are ecosystem integrity, lock-in and (mal) adaptation which are among the concepts we do use as a guide when developing climate policies.

At a time when climate change is turned into climate crisis, Turkey has to pursue active and constructive policies as required by the UN Framework Convention on Climate Change that Turkey is a party and Paris Agreement signed by Turkey.

Canal Istanbul will dry up water resources, cause a huge excavation and filling of a 38 km coastal area with excavation wastes, destroy Küçükçekmece Lake and Sazlıdere Dam and reeds around both wetlands, destroy habitats and accommodation areas of animals, birds, meadows and forages will be opened for reconstruction, end living life in the sea and it is against the ecosystem integrity principles. In this sense, it is also against the climate policy.

Lock-in : The second concept, lock-in, is a concept related to the economic life of an investment. Each investment compels the sector or area to continue in the same way, i.e., lock, for a period of time as long as its economic life.

Canal Istanbul is a huge, irreversible project that will change nature forever. You can shut down a factory or power plant if it brings a cost. But even if you later decide that Canal Istanbul is a wrong project, you cannot close it, you cannot fill the canal. A wrong decision will have caused permanent damage. However, Canal Istanbul will

create a lock-in not only in this respect but also in economic terms.

If Canal Istanbul is constructed, the region will be an excavation and construction site for decades, hence there will be more iron and steel, more cement, concrete and asphalt, which will mean more construction equipment and earthmoving trucks, more fossil fuels and greenhouse gases. In the Environmental Impact Assessment Report, which is written as a defence text of Canal Istanbul, it is stated that the construction of the canal will cause an additional emission of 1.7 million tons of carbon dioxide annually. This emission that will emerge may occur even more with different calculation methods. In addition, the emission that will occur during the construction of the city to be established after the canal is completed and the additional carbon footprint of the population to be transported there are also unknown. Canal Istanbul will create new construction and transport emissions that will continue to rise and will lead to an increase of country's greenhouse gas emissions for many more years to come, and in this sense Turkey's economy will be locked into a path of high-emission.

Mal-adaptation: Another concept, mal-adaptation, is a concept that summarizes the practices that must be (and must not be) conducted to adapt to the climate crisis.

Canal Istanbul will serve the exact opposite of what needs to be done for adaptation. While the water resources need to be protected, being the two most important water resources, Terkos Lake will be salinated and Sazlıdere Dam will disappear. In addition, catchment basins will be more concretized. Sea levels will increase and coastal erosion will form more on the Blacksea and Marmara, Canal Istanbul will be eroded with the excavation wastes to be created.

Due to concretion and tall buildings, the region will create a new urban heat island, existing forest areas will be destroyed and Istanbul will be further affected by the increasing heat waves in the coming years. A significant part of the last remaining

agricultural lands of Istanbul, which should be protected and developed, will be destroyed. The remaining agricultural areas and groundwater will also be salinated. This is called mal-adaptation. This is doing the exact opposite of what needs to be done.

The Canal Istanbul Project will create an Istanbul that is not resilient and flexible to the climate crisis, on the contrary, weak, fragile, unable to adapt, and whose nature has been destroyed

It is the implementation of wrong policies that will make the effects of climate change experienced in a more severe manner rather than adaptation.. It is adding fuels to the fire. Finally; we can connect all three of these concepts, ecosystem integrity, with a fourth concept that crosses in-lock and (mal) adaptation. This is the concept of resilience. We have to make cities, countries, sectors resistant to the impact of climate change, that is, adaptable and responsive. If we do not do this, we will experience a more severe destruction due to the climate crisis. Ecosystems' resilience is only possible if their integrity is preserved. The Canal Istanbul Project will create an Istanbul that is not resilient and flexible against the climate crisis, on the contrary, weak, fragile, unable to adapt, and whose nature has been destroyed. For this reason, along with all other environmental and ecological concerns, Canal Istanbul is a wrong project in terms of climate policies and should be completely abandoned.



Assoc.Prof. Dr. Sevim Budak
Istanbul University,
Department Public Administration and
Political Sciences

The Canal Istanbul Project is located against the ecological originality of Istanbul. In fact, Canal Istanbul Project is the story of transforming Istanbul from metropolis to mega city.

Important picnic areas, agricultural areas, agricultural products, water areas and the situation of those living in these areas are not considered. Istanbul has been undergoing more and more desertification. Our geography is taken from our hands; the areas that we live in, our neighbours, the areas where we were born and raised are lost. If we do lose Istanbul today, we will lose Istanbul tomorrow. In 2010, Küçükçekmece Lake basin lost its property as a protected area and it was opened for construction in 2011. Sazlıdere Dam has been evaluated as insignificant and vulnerable to pollution in the EIA Report.

With the project, Istanbul's access to the nearest water resource will decrease by 30%. The institutions that are obliged to provide clean water to the city through the project will not be able to fulfil their duties due to cost. After the construction of Canal Istanbul, approximately 1.5 million mega city will become a city that will become dependent. Küçükçekmece lagoon and Terkos Lake are international wetlands and they will lose their ecological features with the Canal Istanbul Project. The Canal Istanbul Project violates the Ramsar Convention (especially the convention on wetlands of international importance as the habitat of aquatic birds).

The findings regarding flora and fauna in EIA Report are very much inadequate. Currently lacking indices are reported as if

they were finalised and submitted in EIA Report.

Huge pollution loads of the Black Sea and Danube River and the effects of nuclear and industrial accidents that may occur in Russia and Ukraine can cause major destruction on the ecosystem in Marmara through the canal. The impact of accident risks that may occur in Canal Istanbul on the ecosystem of the Black Sea cannot be calculated.

With the project, the ecological corridors between Istanbul and Thrace are interrupted and the ecological advantages of the city are taken away. The existing natural structure should remain as an ecological corridor and be preserved. In this context, the question that needs to be answered is: "Is Canal Istanbul a political, ecological or economic project?" ■



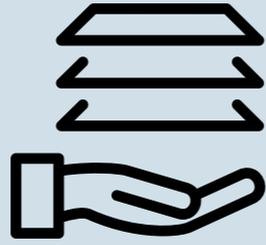
Summary

In the session “Environmental Dimension: Agriculture, Climate and Ecology” moderated by Istanbul Metropolitan Municipality Head of Department of Neighbourhood Units and Food, what is highlighted most by all the speakers is that “The Project will accelerate the negative impact of climate change and it will create an extensive destruction”. Main results of the session are the following:

- ▶ **The area will be opened to zoning and rural areas containing agriculture, grassland and fisheries will be destroyed.**
- ▶ **An urban heat island will be created; the most important thermodynamic properties of the city, such as pressure differences and winds, will be adversely affected.**
- ▶ **The project will directly affect the microclimate in the region and the global climate.**
- ▶ **The EIA Report identifies the current situation; an overall environmental impact assessment has not been conducted.**
- ▶ **The flora and fauna in the region will be negatively affected due to the differences in the salinity of the seas. In addition, the people living in the project will have to migrate and there is the possibility that it will be replaced with foreign population.**
- ▶ **Canal Istanbul Project has no ecological sensitivity; it is not resilient or flexible in terms of climate change.**
- ▶ **Canal Istanbul Project is poles apart with the climate policies that should be followed by Turkey along with the rest of the world.**

CLOSING SPEECH

Dr. Mehmet Çakılcıođlu
IMM, Vice Secretary General





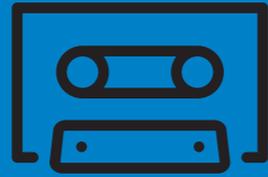
Canal Istanbul Project, as it is currently being discussed and evaluated based on assumptions and non-scientific narratives will bring irreversible ecological, economic, geopolitical, urban and cultural destructions.

With Canal Istanbul, historical, geographic and mystical structure of Istanbul, this unique city will be damaged and its vital resources will be harmed. Being situated in the most important ecological corridor of Istanbul, the Canal Project will create significant ecological harm. Canal Istanbul, will bring the Montreux Convention, which is of critical importance for international law and the security of Bosphorus and Black Sea, into discussion table.

Compared to other canal projects in the world, Canal Istanbul Project does not provide any saving in terms of time and distance. The passage of large cargo ships can be done using available modern satellite Technologies.

The United Nations Framework Convention on Biological Diversity and Climate Change brings holds Turkey liable with certain commitments for the protection of environment. With immense potential of its environmental damage, Canal Istanbul Project is in clear contradiction with these commitments. The budget that will be allocated for the costs of the Project can be used for earthquake preparation and urban transformation that are the major problems of the city.

When the destruction of water reservoirs, forestry, agricultural fields and all these values are taken into account, the economic and overall development will not be able to justify this Project. The concept of development is not evaluated through quality not the quantity, and over the concepts like living quality, sustainability, public good and participation. Canal Istanbul Project, as it is currently being discussed and evaluated with assumptions and non-scientific narratives will bring irreversible ecological, economic, geopolitical, urban and cultural destructions.



INTERVIEWS

Prof. Dr. Korkut Boratav

Retired Lecturer, Ankara University,
Faculty of Political Sciences

Prof. Dr. Emre Alkin

Altınbaş University,
Vice Rector

Prof. Dr. Aziz Konukman

Ankara Hacı Bayram Veli University,
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Assoc. Prof. Ece Ceylan Baba

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Prof. Dr. Avni Zafer Acar

Piri Reis University, International
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Prof. Dr. Korkut Boratav
Retired Lecturer, Ankara University,
Faculty of Political Sciences

Different figures are being mentioned about the cost of Canal Istanbul. In the ÇED report published by Ministry of Environment and Urban Planning, financing cost of the Project is stated as 75 billion TL, while it is declared as 118 billion TL in the report of Ministry of Transportation and Infrastructure. So, what kind of an effect will Canal Istanbul Project will have on Turkish economy if it is undertaken?

I don't think a healthy cost-benefit assessment of Canal Istanbul Project has been made. The huge difference between the figures of different ministries create question about the cost of investment. Furthermore, ecological, environmental, political/geostrategic (due to Montreux Convention) factors and the societal cost of population movement should be added on top of investment cost. Direct financial revenue of the Project requires an estimate of its profitability level. As far as I could follow, a realistic and attractive vision of efficiency has not been done for the Project. A net revenue calculation that puts private and social costs and benefits into account could result in a negative figure.

If the much needed cheap financing cannot be secured from global finance markets, how will the Project be financed and what will Turkey face?

In the given conditions, the budget of Republic of Turkey cannot be a replacement for the external financing. Budget of Turkey cannot undertake the finance burden of a project at that scale. Will the possible rents out of the urbanization that the Project will be able to bear the costs? The financing methods used in highway and

bridge projects were based on external credits secured by the treasury guarantee. Can the financial public burden coming out of treasury guarantee be born with Canal Istanbul Project? It does not look possible to me. Therefore, it would not be attractive for external credits as well. Can the rent-enthusiastic rich of the Gulf directly undertake the financial burden? In advance sale of two lanes of the Canal, reminiscent of much-debated Chester Project, be a financing method? Such a transfer of ownership involves international issues of sovereignty. If the finance options are based on rent, it would directly increase the societal costs that I have mentioned, such as; unplanned urbanization, sociological problems stemming from uncontrollable population movement and environmental pollution. This is why it should not be accepted.

What are the issues that should be brought to the fore and emphasized when educating the public about its cost on country's economy?

Let's focus on Istanbul's already existing tough problems. Let's remove the very design of Canal Istanbul from the agenda. ■



Prof. Dr. Emre Alkin
Altınbaş University, Vice Rector

Different figures are being mentioned about the cost of Canal Istanbul. In the ÇED report published by Ministry of Environment and Urban Planning, financing cost of the Project is stated as 75 billion TL, while it is declared as 118 billion TL in the report of Ministry of Transportation and Infrastructure. So, what kind of an effect will Canal Istanbul Project will have on Turkish economy if it is undertaken?

Mega projects would most certainly contribute to the economy but in most cases their cost is more than their benefits. Furthermore, once you plan the mega projects as an element of integrated regional planning you do not get the desired results, just like in the GAP Projects (South-eastern Anatolia Project). If we use the declared amount for digital transformation of in the fight against corona virus we would create a much bigger added value and make meaningful contributions to people's lives. Therefore, let me underline once again, every project would contribute but it is of utmost importance to use the source for projects that would bring better added value. In terms of added value Canal Istanbul would not be in the list, not even as the last item.

If the much needed cheap financing cannot be secured from global finance markets, how will the Project be financed and what will Turkey face?

Money can be found for practically anything in Turkey, they would find it for this project as well. However, the projects that are addressed to contractors by the government are too expensive for the ordinary citizens to use. These projects are also questionable in terms of creating

added value. Giant airports used by very few people and city hospitals can be given as examples. When the sources that will be used are compared to the utilities coming from other possible projects that are being prevented, it gets clear that no reasonable planning has been made. For example, Turkey does not have 5G infrastructure and all the sources must be directed to this. Rather than the 5G technology that will create significant savings from healthcare to education, insisting on the Canal Istanbul Project which will create an environmental disaster indicates an inconsistency between the visions of decision makers and the realities of the world. Implementation of a new economic model with the correct vision is urgent.

What are the issues that should be brought to the fore and emphasized when educating the public about its cost on country's economy?

It should be publicized that moving the resources that are planned to be used into the fields that I just mentioned would bring a much bigger added value and efficiency. In the same vein, it should be made clear that Turkey does not have the priority of such an investment while the country has many other problems that waiting for investment. Moreover, promoting fields other than construction to Turkish youth would be a more fitting vision to the realities of the world. I believe these would be the correct messages. ■



Prof. Dr. Aziz Konukman
Ankara Hacı Bayram Veli University,
Economics Department

Different figures are being mentioned about the cost of Canal Istanbul. In the ÇED report published by Ministry of Environment and Urban Planning, financing cost of the Project is stated as 75 billion TL, while it is declared as 118 billion TL in the report of Ministry of Transportation and Infrastructure. So, what kind of an effect will Canal Istanbul Project will have on Turkish economy if it is undertaken?

Three different figures are roaming around. The financing cost of the Project is expressed in the official ÇED report as 12.7 billion USD, in the 2018 presentation of Ministry of Transport and Infrastructure it was expressed as 20 billion USD, yet in January 13 2020 presentation of Cahit Turan, the Minister of Transport and Infrastructure, it was expressed as 25 billion USD. In Turkish Lira, we are talking about 75, 118 and 145 billion. It is obvious that a project with no serious cost calculation would not be taken seriously. Even if they declare a well calculated cost, that will not be the end of problems. There are two problems: The first one, the foreseen amount could increase for various reasons starting with the court cases that would be opened against expropriation practices. In such projects it is extremely difficult to foresee the investment cost altogether. Previous similar artificial waterway projects indicate that the overall costs multiplied the initial cost calculation. It is possible that a similar case will happen with this project. The overall cost will also change depending on the fluctuations on the exchange rate between USD and TL. The second problem is with the structure. It should be planned in the best possible way for the management purposes and utmost

attention must be paid for it. It is stated in the official document that the Project is being planned for 100 years given the necessary maintenance is done properly. In the official ÇED report there is no mention or foresight of the management costs. There is no calculation of the costs and revenues that this project will bear throughout its life. This is a very important question. Because without clarifying this, you cannot get a feasibility study done. The existing ÇED report does not allow that.

About the second part of your question, what will be the costs and benefits of this project to the society? Economic effects that you mention in the question constitute only a part of the overall societal effects. Such effects are analyzed in economic, social, regional, environmental and cultural dimensions. Cost-benefit, cost-effectiveness, added value, revenues in foreign exchange, employment, income distribution, effects on public financing, external effects, social and cultural impacts can all be analyzed in the scope of economic and social analyses. The most comprehensive and when suitable the most preferred one among these analysis methods is cost-benefit analysis (CBA), which is used to analyze the costs and benefits of the investment projects. The costs and benefits of investment projects can be analyzed from the points of view of the investor, national economy and society. The one that is done from the point of view of the investor is called commercial (or financial) CBA, the one that is done from the point of view of national economy is called economic CBA and the third that is done from the societal point of view is called social CBA. The economic CBA analyzes a project in terms of its effect on the growth of national income. In the scope of this analysis, methods that are based on single-factor benchmarks (added value effect, employment effect, foreign currency revenue, income distribution effect, public financing effect, external effects etc.) can be used, alongside other methods that use integrated factor benchmarks (economic domestic profitability. Many countries and international institutions use economic CBA based on shadow prices since it measures the effect of allocation

of public resources on national economy more realistically. With this method, not only monetary costs and benefits, costs and benefits on healthcare (life expectancy, living quality etc.), environment (the damage that it gives to the environment), and positive and negative externalities can be involved in the evaluations. Social CBA is a method of evaluation that brings together the growth in national income, income distribution and other social purposes.

There are different takes on the aims and methods of social and economic analyses in literature. CBS by the way does not constitute an alternative to ÇED report. It is more like a complementary to ÇED. It aims at measuring the economic and social cost-benefit analysis and the social effects of the public resources that are allocated. Implementation of these methods should not suffice to the analysis of proposed project and take it into account in a standalone manner, because, every project has its costs and opportunities. The resources allocated to the Project can be used for other projects. Choosing a specific project means quitting others. Therefore, in any project proposal, other possibilities of resource allocation must be mentioned. The proposed project and its alternatives must be evaluated in their effect on environment, national economy, different segments of the society and regions. The ranking of the competing projects should be built in this fashion with the precondition that their benefit to the society exceeds their cost. These proposed techniques, of course, will not exhaust the discussion on the issue. Since every project, despite their overall utility, will bring some costs and burdens to certain individuals, the decisions to distribute these costs and burdens based on these techniques will not make everyone happy.

Furthermore, CBA technique is expensive, time consuming and cannot be applied in every situation. On top of that, the damage on human health and environment cannot be calculated in monetary terms. A discussion on the monetary expression of such effects is still going on in literature. On November 2012 issue of EKO IQ magazine, there was a very informative dossier on this

discussion entitled: "How much is nature worth?" In the given conditions, basing the decisions on the implementation of any investment project on such analysis, regardless of its flaws, is accepted to be better than basing them on objective criteria. Once the damage on human health and environment are expressed in monetary terms in a CBA –considering the intangible social costs- such projects render not implementable in societal terms. Because, throughout the years, the possible aggregate societal cost of the projects could multiply its possible aggregate cost. These analyses do exist in our by-laws. Conducting economic and social analyses was first instructed in "Feasibility Report Format for Public Investment Project Proposals above 2 Million TL", and addendum to 2006-2008 Investment Program Preparation Guide that was published in July 2005. In the 2019-2021 Investment Program Preparation Guide the amount was revised to be "above 10 million TL". The first document that proposed such analyses to be made in public investments is The Special Expert Commission Report on the Effectiveness of Planning and Implementation of Public Investments, to which I was a rapporteur, and which was involved in the eights Five Years Development Plan. There is one another regulation in our by-laws pertaining to this issue. The Law on Public Financial Management stipulates that "Cost-benefit, cost-effectiveness and other economic and social analyses that render necessary must be done in line with economic and social efficiency principles in the provision of the needed sources for supplying services and products by public authorities", and this is of the essence as a major principle of public financing. In line with this regulation, for this project that is identified as a service of infrastructure, either carried out in a build-operate-transfer model, (on page 371 of Presidential Decree number 14, it was declared that the Canal Istanbul Project was decide to be built with build-operate-transfer model), or undertaken with the national budget, since both methods are related to the budget (while an allowance is allocated in the first model in the scope of the guarantees given to the budget, the second stipulates an allowance equal to the amount of total

investment) cost-benefit, cost-effectiveness and other economic and social analyses that render necessary. Nevertheless, despite the clear instruction of the by-law, the authorities seem to suffice the issue to the ÇED report and the analyses stipulated by the by-law are not being done. This clearly conflicts with the by-laws that are in force. In the ÇED report there is only a narrow cost-benefit analysis. In this regard, it is specifically meaningful that in the 1595-pages-long report, only 5 pages (366-370) have been allocated to this analysis. The economic feasibility study of the Project declares that it will contribute to the country's Gross Domestic Product (GDP), increase the security around Bosphorus, decrease the costs of accidents and support international trade as a strategic issue. When the economic benefits are evaluated in the context of GDP, it is expected to make 126.4 billion USD additional contributions to GDP over 20 years. This figure amounts up to 0.74% of the overall GDP of Turkey. Calculating the contribution of the Project without conducting an independent research* and with reference to another study is quite meaningful. Furthermore, they also claim that there will be economic utility that will come from the increasing security in Bosphorus and decreasing number of accidents with the implementation of the Canal Project. In addition to that, they argue that alongside the usage of the Canal and the supporting integrated facilities and logistics centre will provide significant utility and Turkey will contribute to the performance of international logistics. Turkey will also improve its infrastructure and decrease the running time of international goods. As clearly displayed here, the cost-benefit analysis is a single-factor economic cost-benefit analysis.

Another curious point is that despite a detailed take on the ecological and environmental problems in the report, it is concluded that there will be no significant effect on them (p.370). In the same vein, it is interesting that the employment utility of the Project was not mentioned here, it was mentioned at some other place in the report. The AKP government argues that the Project will contribute significantly to

employment, yet the data speaks otherwise. According to the data publicized in the ÇED report the Canal would employ 10.000 people, yet only 500 to 800 of them will be permanently employed. The rest will work during the preparation and construction phases. It is expected that during the construction 8 to 10 thousand people will be employed and for the management of the Canal, a total of 500 to 800 people will be employed including the facilities of the Canal. The data suggests that rather debatable project of the AKP government will not significantly contribute to employment. In fact, they must have found the number 500 to 800 permanent employment so small that they did not mention it in the economic cost-benefit analysis.

If the much needed cheap financing cannot be secured from global finance markets, how will the Project be financed and what will Turkey face?

While Turkey's credit default swap (CDS) was 267 in mid-January, it reached 420 as of March 10. In this steep rise, the tensions in foreign policy (especially the crisis in Idlib) played important roles as much as the domestic economic fragility of the country. Alongside these, the risk brought about by the corona virus of course contributed to this steep rise in the risk coefficient. As the global recession continues because of the virus, the risk coefficient will keep rising and reach higher points. This means more expensive external debt for Turkey. In such a juncture, carrying out the Project through build-operate-transfer model seems extremely difficult. On top of that, the deficit of the Project from the 2020 budget seems to be above 5 billion TL and this renders the financing of the Project near impossible. It must have been considered that these two financing models may not work a third way was sought after. With the Law on Changes on Banking Law and some others they enabled creating funds for mega infrastructure projects and energy projects that need intense and long term capital. The method called "crowd funding" is based on collecting money on various platforms including electronic one. The citizens and companies can buy real estate from Project

and fund it. This is being regarded as an effort to find funding for the Project for which no financier could be founded. With a legal amendment, they paved the way to load the citizens and companies with the financial burden of such high cost project. However, in a juncture where the growth rate will be less than 5%, the declared figure for the year 2020, because of the mentioned risks, it will be very difficult to carry this burden. Therefore, there is no rational economic basis to insist on Canal Istanbul Project.

What are the issues that should be brought to the fore and emphasized when educating the public about its cost on country's economy?

The total evaluation of Canal Istanbul must not be limited to its economic cost, and include the dimension of social costs. From this perspective, the answer to the question was given in answering the first question. In case the Project is carried out 145 billion TL will be transferred to it, therefore, we will be abandoning other projects that can be done with 145 billion TL. As if this social cost is not enough, other non-repairable damages (threatening harm on human and environmental health including possible ecological destruction, decrease in agricultural fields, social costs stemming from forced migration etc.) will be possible. ■

* "What prospects for transport infrastructure and impacts on growth in southern and eastern Mediterranean countries?", MEDPRO, 2013.



Assoc. Prof. Ece Ceylan Baba
Yeditepe University, Architecture Faculty

You define Canal Istanbul Project as a utopia which will fast turn into a dystopia. What kind of a dystopia do you foresee?

The cities are in a global competition currently. To create some advantage they resort to mega scale projects. This, then, paves the way for function-free utopian mega projects that aim at economic growth. Such projects, despite they are heavily desired by the ruling group, may create irreversible social, economic and ecological damage once they are carried out. Therefore, the utopias on paper may turn into dystopias easily. In other words, the utopias that are dreamed through mega projects may turn into dystopias during the implementation phase with the variables that are ignored or not put into calculations. With the Canal Istanbul, the current utopian approach aims at accelerating the economic growth of Turkey and Istanbul and with sensation that the iconic structures create, making the promotion of the city at the global scale and turning it into a global attraction point. Canal Istanbul Project involves deep intervention into nature and the city. With an irreversible revolution that would only take a couple of years, it will transform the overall environment of the city whose evolution took 12 thousand years. Even though a utopia is desired out of this approach, other historical examples and rational-scientific approach point out that it may turn into a dystopia.

How do you evaluate the Project in terms of architecture and urban design?

The utopian approach that designs the city like a machine, like an ideal, turns the cities into negative spaces of dystopia. It is clear that, once a utopian approach is

put into the very basis of an urban project, however the utopia is designed, everything gets justified to reach to that utopia. From this point, it becomes inevitable that the utopianism brings oppression and enforcement, which is dystopian by its nature. Furthermore, the utopia that is presented as a city has to be flawless since it was identified as an ideal. From that, second dystopian evidence shows up: The idea of flawlessness creates a city that is not open to change and leaves no space for development in a static understanding. Then, we reach to third evidence of utopianism that result from the first two: Utopian thought and freedom cannot co-exist. Now, we have completed the thought cycle of anti-utopian reasoning: Utopianism, in every scenario, aims at the impossible and ends up with oppression and totalitarianism once forced into practice. In other words, the utopian urban design attempts, almost certainly, end up with dystopian urban spatial designs. Scientific researches and expert opinions indicate that Canal Istanbul Project invites many dystopian damage scenarios, which involve the destruction of urban macro forum, its ecosystem and archaeological remnants. In order to prevent such a mega scale destruction, the Project must first be told to public in all transparency and then must be discussed by scientists and experts in all its dimensions laying out potential problems that may stem from it and then should be comprehensively thought for how to get over those problems. ■



Deniz Ataç
Tema Foundation, Chariwoman

What will be the overall effect of Canal Istanbul Project on environment?

The Project will be built in an ecologically sensitive region and therefore, it cannot be evaluated merely as a waterway transportation project. It will change the whole transportation system of the city, its overall macro form, underground water system, and nautical and terrestrial ecosystem. Undertaking such a vast and extensive project, as if it were any other industrial facility or a quarry, just with a ÇED report will create many uncertainties and render many problems unsolvable. Far beyond how it was addressed in the ÇED report, this project will effect Istanbul , the whole Marmara region, Black Sea, Marmara Sea and nautical and terrestrial living spaces in all these regions. Therefore, bringing such a project into life without high scale spatial planning and strategic environmental evaluation will disable us to bring out all the possible effects that it will bear.

The Project will bring harm to life-support systems of Istanbul such as agricultural fields, forests and water reservoirs that are strongly linked to clean air, clean water and adequate and healthy food. With this project 142 million metre square agricultural field face the risk of zoning. This amounts to 19% of the total agricultural fields of Istanbul. According to ÇED report 421 hectare forestry will be cut down. First of all 287.03 hectare of this forest has protected forest status and remains in the boundaries of Lake Terkos Protected Forest. Lake Terkos, Sazlıdere Dam and Lake Küçükçekmece remain in the route of the Canal and its sphere of influence. These regions are extremely important ecosystems for amphibians, freshwater

creatures and birds. The Çed report recognizes that there are 249 bird species, 29 fresh water creatures and 7 amphibians in these regions. Sazlıdere and Terkos water basin, both of which remain in the scope of this project and together constitute important water reservoirs of Istanbul, face the risk of salinization and extinction. Terkos and Sazlıdere constitute 29% of total water collection capacity of the city. Underground water basins that concentrate under Thrace are of strategic importance on the face of possible drought resulting from climate change. Because of the Project all the underground water on the European side of the city face irreversible risk of salinization. ■



Prof. Dr. Avni Zafer Acar

Piri Reis University, International Logistics and Transportation Department

One of the most important reasons that are put forward for Canal Istanbul is the Bosphorus being less-than-enough for international transportation. Another one is that the Project is required to decrease the accidents that take place in Bosphorus. Will Canal Istanbul Project really increase the maritime trade? Are the ship accidents getting more frequent in the Bosphorus? They also say that transit through the Canal will be more expensive; therefore, it will bring more revenue to the country. How will the international commercial ships be convinced to go through a canal for which they will have to pay more?

The existing data shows that the number of ships that pass through Bosphorus decreases, as was indicated in the table below. The table also demonstrates that there is no specific intensity in the transits through Bosphorus and there is a decrease

of 13.461 ships from 2004 to 2018. The decrease becomes 15.503 compared to the most intense year, 2007. The construction of the pipeline that crosses Turkey has a lot to do with this decrease. So, there is a clear decrease in the number of oil tankers, which further decreases the risks that are created by the transiting ships. The second column of the table discloses that half of the ships that transmit use marshalling services, which increase by the years. This, needless to say, increases the passage security.

The third and fourth columns of the table show all the tankers and the ships that are bigger than 200 m in length. In line with the trends in global maritime transportation towards container transportation, the ratio of big ships in all transiting ships increases. Yet, the overall number of oil tankers that pass through Bosphorus is decreasing. On top of that, more than 99% of the big ships that are larger than 200 m get marshalling services.

Looking into commercial side of the issue, I don't think Canal Istanbul will have a positive effect on maritime trade. Many experts are discussing the rent and environmental effect that this project will create, yet the most important dimension of the issue, maritime trade is being left out. The ships that transit through Bosphorus

Years	Total Pass	Guided Pass Rate (%)	Ships Larger than 200 metres (Total)	Tankers (TTA, TCH, LPG/LNG)
2004	54,564	40,90	3,052	9,399
2005	54,794	44,70	3,503	10,027
2006	54,880	48,45	3,653	10,153
2007	56,606	47,14	3,653	10,054
2008	54,396	49,64	3,911	9,303
2009	51,422	48,57	3,871	9,299
2010	50,871	51,18	3,623	9,274
2011	49,798	52,23	3,800	9,103
2012	48,329	51,34	3,866	9,027
2013	46,532	51,63	3,801	9,006
2014	45,529	53,83	4,295	8,745
2015	43,544	53,62	3,930	8,633
2016	42,553	52,54	3,873	8,703
2017	42,978	55,98	4,005	8,832
2018	41,103	56,99	4,106	8,537
Toplam	737,899		56,942	120,610
Annual Average	49,193	50,23	3,796	8,040

must be under certain limits. According to the existing by-law on Bosphorus, the ships that are up to 300 m can pass through without a special control. I have the statistics of passage with you a short time ago.

I would like to evaluate the issue in the context of container ships and container transportation which are increasing at the global scale. 300 m ships have a maximum of 5.000 TEU container capacities. These ships, in general, have 11 or 12 meter drafts, therefore, they don't need a deep sea port. This increased the use of ships less than 300 meters in length, which are called Istanbul type, in Black Sea. However, the planned Canal will allow 340 meters long, 48 meters wide and 15 draft ships to go through Istanbul in a faster manner. These ships have, in general, the capacity of 8.000-8.500 TEU.

Therefore, there will be a capacity increase of 50-60% and with increased traffic; the total cargo will increase 70-75%. In terms of international trade this could be regarded as a great development, especially for time and total cost. The interesting coincidence is that the consortium that includes Dubai Port (DP World) that carry on with expansion and development in Constanza Port, APM-Mearsk in Poti Port, Conti Holding from United States in Anakhlia Port are working for ships with 8.500 TEU capacities. With this project coming alive, the works of international strategic chain that involves international enterprises of main route ship managers and their strategic partners, port managers will be facilitated. In the current situation, we maintain the control of the most vital point of this chain. At a time everyone focuses on the financial cost and environmental effect of the project, this perspective cannot be left unattended. From this perspective, it gets easier to understand why they make huge investments on deepening the Constanza, Anakhlia and Poti ports and extending their piers. It also should be noted that the expansion works of the Egyptian canal coincided with the conflicts that are called "Arab Spring". After the actualization of the second Suez Canal, what Egypt attained out of it should be

studied for our benefit.

In short, if the Canal Istanbul is constructed, no main route carriers will have to dock to Ambarlı port. Our maritime fleet, which mostly consists of coaster type ships, will not be able to get short distance distribution/collection cargo. The amount of cargo handled in our ports will decrease too. Actually, Pire port has surpassed Ambarlı port with strategic connections that it made in recent years. We should also consider that about 70% of our port transactions take place in the ports of Marmara region. From this point of view, the incoming cargo of our industrialists will be handled at Pire port and Turkish ship owners will face significant costs to get these products to our ports. This will decrease our competitiveness at the international arena because of the increases in the input costs. On the face of these losses, we will gain a relative decrease in the traffic of Bosphorus and the revenues that we will obtain from the passages through the new Canal, which is far less than our losses.

As a result, in the maritime context, while the powers that control international trade will win, Turkish ports, Turkish maritime transportation and Turkish economy will lose. ■



FORUM SPEECHES

Funda Cihan
Zehra Dalmaz
Zafer Acar
Kemal Doksanyedi
Süheyla Bayrak
Hasan Cavit Yenigün
Oytun Güventürk
Haluk Dural
Ayşe Yıkıcı
Eren Onur
Ahmet Saymadi
Koray Türkay
Zafer Ülger
Yalçın Yüksel
Uğurcan Bayer
Soner Alkan
Murat Cesur
Turgay Mahmutoğlu
Zana Gümüş
Metin Düzgüt
Meftun Gürdallar
Oğuz Kılıç
Kaya Enişte

Funda Cihan

First of all, thank you for the invitation. I am an environmental engineer and attending the symposium on behalf of Chamber of Environmental Engineers. It was not possible to follow all the sessions, but I think the participants were informed in every dimension. The workshop made a very important contribution. As a chamber, we have already been carrying on with our work on this issue. We will publish our scientific report about the Canal soon. I wanted to share this. I'd like to thank all participants for their contributions.

Zehra Dalmaz

First of all, Welcome!

I came from Durusu, Terkos which is one of the villages whose nature was destroyed by the new airport. Now, they want to create a new rent area in our region under the name of Canal Istanbul. It will hit one last blow to our living space if this crazy Project comes to life. We, the residents of Terkos, don't want to see our village being destroyed. I'd like to share the difficulties that we have as local people with you. Firstly, dust falling on us has become a daily routine for us since the construction of the new airport started. It rains mud on us, instead of water. Storks that used to come to our region every spring do not come any more. Did we block their migration routes or did they find a better place? I'll leave the discretion to you. The wild goose, which are permanent guests of Istanbul's only water source the Terkos lake, are absent, too. Most of our crop is rotting on the trees and the rest is consumed by the creatures whose living spaces were sacked. We now have to live too close to hungry foxes, hedgehogs, wolves, pigs and many more. Since wetlands dried up, we are struggling with a very strange type of mosquito. They are like ghosts with no sound or visibility. They suddenly sting and disappear. The places they sting get very itchy and they leave a very bad scar. I have been living here for fifty years and

never seen something like that. As people of Durusu Terkos, we will stand up to this crazy rent project to the end, which will destroy our living space. We will resist as much as we can. Not only will we defend our rights but also the rights of the trees that they will cut, the lakes that they will dry and the wild animals. I say "Canal or Istanbul" and greet you respectfully.

Zafer Acar

Many issues were discussed in the sessions. I want to inform you about an issue that I think was not addressed. 80% of international goods movement by volume is carried by sea. International transport is now mainly done with larger ships over 300 meters rather than smaller ones that we call coaster. The decrease in fuel transportation with the widespread use of pipelines has greatly increased container transportation. Ships up to 300 meters long can pass through Bosphorus. These ships generally carry cargo with 5000 TEU (Twenty Foot Equivalent Unit) capacity and they have 11-12 meters drafts. So, how will the features of new ships that will pass through the canal be? It is said 340 meters length, 48 meters width, 15 meters draft. These dimensions equal a ship between 8000 and 8500 TEU. It means 50% to 60% more goods per ship, and, with less waiting time in Ambarlı port, 70% -75% rise in goods movement will take place in total. Who will primarily benefit from this increase? It is beneficial for those who control the international trade, and we see the signs of it. At the moment, extension, expansion and deepening works are being carried out in 1-2 ports in Constanta, one by the European Investment Bank and the other by DP Port. Again, a similar work is underway by the world giant HPM Port in Georgia's Poti Port. The coincidence is that the measurements exactly match the declared measurements for Canal Istanbul. The large main line ships that I have just described go to the Poti Port mostly, but as a result they deliver goods to our coaster fleets too and our ship owners get their goods to the Black Sea. If we open the canal, the main line ships will

follow the route of Alexandria and Piraeus, and from there Constanta and Poti route by paying only the passage toll without ever visiting us. In summary, we will only get the passage fee and protect them.

Kemal Doksanyedi

Good evening everyone! In today's workshop, scientists made all the necessary scientific explanations. I am here to represent the volunteers of MAHDER, Neighbourhood Disaster Association. On behalf of neighbourhood disaster volunteers, I carry out the works in Kucukcekmece. The nature will take everything back that we have taken from it. It will be a flood when the time comes, it will be a fire then, and it will be an earthquake when the time comes. We just have 72 hours to save the victims after a possible earthquake disaster. Not more! 8 bridges, which will be built on that canal, will prevent us from reaching the disaster area, considering the logistics and drugs coming from the west. They will kill us in our own trap just like a mouse when it is trapped. Please tell this to your neighbours and relatives in your neighbourhood and around you. The earthquake is at our door and unfortunately we haven't learned how to live with earthquake for 20 years. Only painful experiences will teach us. I thank you all.

Süheyla Bayrak

Hello, my name is Süheyla Bayrak. I am a geo-morphologist. I can say that I have not come across any information about the geomorphology in the dataset on Canal Istanbul Project. It is not possible for geologists to exercise their craft just by looking at location. They need geo-morphological information as well. Likewise, geo-morphologists need scientific data presented by geologists. Geomorphology is a branch of science that examines the geographic formations that

has formed since the fourth geological time and will form in future. For this reason, it also provides important data for the organization of the economy. Geomorphology, as a discipline, should not be neglected to predict what kind of problems you might face in the next 50-100 years in the construction of a dam or in a big project like Canal Istanbul. We should have accurate predictions about this issue and the relevant data should be expressed in clear numbers. So I am asking where is geomorphology and geo-morphologists? The Canal Istanbul Project has made an extremely deadly problem apparent both for Turkey's economy and in terms of citizens as well. The Marmara Sea is dying. How do we save Marmara Sea? This is our biggest problem and this needs to be scientifically studied with clear data. Thank you.

Hasan Cavit Yenigün

I am a certified engineer of Chemistry. I want to touch upon two issues. I will first talk about what Canal Istanbul will create in the context of Marmara and then, will comment on navigation in line with the data that I have.

The Canal Istanbul Project must completely be taken off the agenda because it will accelerate the death of Marmara Sea. What I expect from everyone is, even if we can't do what is necessary for Canal Istanbul Project, we should do it for Marmara Sea. As many scientists state, Marmara Sea is about to die because of a multiplicity of polluters. If Canal Istanbul is built, River Danube will follow the coastline and then flow into the Canal where the flow is faster. The materials that are collected there because of shallowness will go in the Canal. If the flow rate is cut, a part of these materials will settle where they are but most of them will be carried into Marmara Sea anyway. Some people claimed that the Canal will decrease the number of dangerous passages.

I am sorry to ask that but I have to: do we

have an oracle here? Do we know which ship will have an accident and where? Let's suppose that we directed 40% of the ships to the Canal, do we have a guarantee that the remaining 60% will not have an accident in the Bosphorus? If we control the navigation on a scientific basis and complete the insufficiencies of our control system and regulate the navigation on the basis of weather, the accidents will cease to exist. Accidents are not only subject to statistics. If you take the right measures, you will decrease their possibilities. Some people claim that with Canal Istanbul, our city of Istanbul will become a world brand. We have to consider the well being of our people resorting to the considerations of brand. Thank you.

Oytun Güventürk

I am Oytun Güventürk from Hiking Istanbul initiative. I would like to ask a question rather than presenting a commentary. You know, in many works that we do, foreign countries feel entitled to warn us. Good or bad, they express their opinions. I wonder why these countries are silent on Canal Istanbul. Or are they really silent? May be their voice is not reflected onto us. Or they may be silent because they are parties to this Project? I would like to hear the answers to these questions if there are any. Thank you.

Haluk Dural

Distinguished participants, I am Haluk Dural, secretary general of National Center Platform. In valuable sessions we have had the insightful takes of experts in every dimension. I don't have much to add to what we have been told. But, I would like to state my opinions in brief. The first one is about the financing of the Project. As a former expert of State Planning Agency, I can say this clearly. There is no possibility of carrying out such a project that will cost

75 to 100 billion TL with national budget. When you put together the budget deficit in 2009 with 175 billion TL stipulated in the budget law of 2020, you will see that the money to be spent on budget deficit will be above 300 billion TL. Therefore, there is no likelihood to carry out such a huge Project with the national money that doesn't exist. Let's talk about the foreign financing now. The credit default swaps of the important institutions that assess the credibility of the countries identify 400 as the base point for Turkey's credit default swap. This point is 2 for China. In summary all the countries would give loans to China without hesitation because there is a guarantee of repayment. Yet, no one is providing credit to Turkey with that 400 base point. Therefore, Turkey will not be able to secure foreign credit. I am one of those who think that this Project will never come out alive because there is neither money or credit. Yet, certain things will be done for a show because the promises made. Then, there is the constitutional dimension of the issue.

In the afternoon session Mr. Rıza Türmen pointed out to this issue. Article 43 of the Constitution has a purview on the protection of coastlines, lakesides and sea shores. In brief, this article states; "utilizing the coastlines can only be regulated in public benefit". This clearly indicates that before putting any Project about the coastline into force an amendment on that article must be made. It is the judgement of the Constitution. This is why the ÇED report, which was made before the amendment on this article automatically, becomes null. All the relevant institutions should file complaints in administrative courts with the justification that "The ÇED report is void".

On the security dimension of the issue, Admiral Türker gave detailed information. I want to make a small addition to that. United States of America is opening anti ballistic missile bases in two countries in the scope of European Missile Defence Project. One of them is by the Baltic coastline, Poland, the other one is the Deveselu base in Romania. Construction of the base in Romania is being delayed due to Russian pressure but the one in

Romania is almost complete. They placed fixed radars for the control of the missiles, the shells of missiles and launchers. After this was done, Russia warned the United States, because among the shells in Romania, there are cruise missiles modernized by the US. Tomahawks were installed nuclear warheads. Because of the installation of nuclear missiles, cancellation of intermediate-range nuclear forces treaty came to the agenda and the Americans had to give up the project. So, the Americans have to protect this base in Romania. They can only do that from the sea. As a counter measure, Russia installed Alexander missiles in Crimea and declared that in case of a threat they will launch them. The Americans aim at keeping the Russian bases and launching pads between Moscow and Black Sea under pressure using Tomahawks. For the United States to protect these bases and when necessary, hit the Alexander missiles of Russia, it must be able to maintain its anti-ballistic ships, cruisers and destroyers in Black Sea. This is where the problem is. For this to come to life, Montreux Convention must be nullified. The main aim of Canal Istanbul Project is opening the Montreux Convention to international debate and eventually nullifying it. I salute you with respect, thank you.

Ayşe Yıkıcı

Good evening everyone. I am Ayşe Yıkıcı from the initiative, North Forest Defence. I would like to state that it is great to see a local authority by our side in our struggle that started in 2013 against the third bridge that we call "the murderer Project". It shows the level of our expansion. I would like to thank the management of Istanbul Metropolitan Municipality (IMM) for giving us the opportunity to stay together in this struggle. As North Forest Defence, we had hit the road to resist every Project that foresees zoning of the northern forests. When the Canal Project came to agenda in 2011 as "the crazy project" we said what we had stated for the airport and third bridge projects. This too is a murderer Project.

Today sister Mücella said something very beautiful: "The cost of nature is not zero". It really is not. With the projects; the third airport, the bridge and northern highway, millions of trees were cut down. In our calculations we saw that just for the third airport, 13 million trees were massacred. What I mean is, it is not just the trees that are being destroyed with these projects, it is a big ecosystem. The living space of all the living things is being destroyed. They are becoming homeless with these projects. Our struggle remains to be human centric almost all the time but we should keep in mind that the owner of nature is all the other living things alongside humans. This is why this struggle is important for all the creatures. The fire in Australia massacred 8000 koalas, an endangered species. In northern forests there are many creatures that are endangered. We have to grow this struggle for all the creatures.

I will touch upon another issue. You know that the environmental plan of 1/100.000 scale is pending and it will be taken down as of January 25. Someone mentioned a petition. We have to proceed fast on that as well. All the official institutions must file complaints separately. Because every administrative court may have a different verdict and this is how we can have break through in the legal system. This is why I invite all the institutions file a complaint. This is all I have to say and I appreciate the efforts that you put into this.

Eren Onur

Good evening everyone. After an intense program we have learned a lot. We have all taken it to the level of conscience why we should reject this Project for all the scientific and economic reasons. Most of us actually had this in our conscience and this is why we are here. From this point on, we should discuss how to organize and resist. On the face of a political stubbornness which says, "I will do this whether you like it or not" we have no other option but promote the concept of participation that has been emptied out

anyway. What makes participation possible is to act in an organized manner. I believe, at a time when they started talking about taking the issue to referendum, it would be suicide for us to go to referendum with such a state of organization. For this reason we have to employ all the organizational power that we have to inform the society on this issue. There are two legs to this. The first one is social organization, that is to say, creating channels through which the relevant information could be dispersed in society. An important prerequisite to this is the people who have this information should be organized. For this to become possible, people with technical know-how and scientists should get organized. For example I am an architect. We need to discuss how we can promote the information that we have in architecture, planning and design through our mechanisms of complaint. Thank you.

Ahmet Saymadi

Hello dear friends. The panels indicated that the Project that is brought to the agenda by the AKP has nothing reasonable or logical. We have to keep this projet on the agenda until the AKP regrets and retreats, that is until they say, “we have been cheated, we have made a mistake with this Project”. We have to show Istanbulites what kind of a treason this is if we do not stop it. This is of necessity.

The panels indicated another issue as well. We are right in our resistance to Canal Istanbul all the way, but do we have what it takes? Are we strong enough? This is what we have to see. This is not only a legal struggle, we have to bring people together everywhere in Istanbul and inform them. When a bulldozer enters the field where they will build the Canal, all the people of Istanbul should know why it does so. Once they know that, the people of the city will certainly prevent it. We can call this workshop as a “beginning of a struggle against Canal Istanbul”. This is just the beginning. Keep on resisting my dear fellows.

Koray Türkay

Hello everyone. I am Koray Türkay from “Either Canal or Istanbul Coordination”. We have been informed greatly during the sessions today. The information is of great value in our struggle against this Project of pillage and destruction. This Project of pillage will create an immense dsctruction in economic, ecological and social terms. We need to do some readings in political terms. Today, this palace regime, one-man regime, the dictatorship sees the opposition bloc as the greatest danger. The street opposition that has been on the rise has manifested itself in the ballot boxes in the local elections and the candidate of this democratic bloc won in Istanbul. That is why this democratic politics and its bloc is the biggest target of the palace and its government. So, in organizing this struggle, we should prioritize a joint struggle, a side by side stance. Another important issue is we have to spend utmost attention to avoid confronting with each other. This is the biggest political trap that is waiting for us. In both political terms and tha capacity to act together, we are the stronger side. We should turn this power into an advantage and out an end to this darkness. First of all, we have to quit asking for referendum. Instead, we should promote early general election. That would be the only antidote to the political trap that I have just mentioned. The Canal Istanbul Coordination that is constituted by 110 institutions and many individuals who stand side by side nominates itself to disperse the perspective that came out today in this workshop to every square and neighbourhood of this country. We will either win this struggle altogether or we lose it again altogether. Thank you very much.

Zafer Ülger

Hello. I am Zafer Ülger, from the Başlangıç Collective. In this workshop we have become aware that with this Project, destruction will come in three ecological fields: Marmara Sea, fresh water reservoirs

and agricultural fields. Yet, what I want to ask is something different. We will do what we can against this destruction. While we do what we can and fight against Canal Istanbul, can we also work for a start a new Istanbul in all these three ecological areas? The academics are saying that the Marmara sea is dying. It is, and we can't drink fresh water. We just take bath with it. The agricultural fields are dying too. Therefore, Canal Istanbul is a murderer Project that will drive the last nail into the coffin of these three fields. In the fight against these nails, there is a negative side to just saying “no”. While we have IMM that struggles on our side against Canal Istanbul, can't we ask for a clean drinking water from the tap? Or can we ask for a waste recycling facility for the waste of Istanbul rather than dumping the trash into Marmara Sea? I believe, we can promote the idea of ecological Istanbul against their Canal Istanbul. If we can start cooperatives with the villagers on the projected field of Canal Istanbul and transfer their products into the low income segments of Istanbul, if we can provide drinkable clean water to homes, we can prevent this Project and kick start a new ecological Istanbul.

Yalçın Yüksel

I would like to start with thanking Istanbul Metropolitan Mayor and his management team on behalf of Chamber of Geology Engineers Istanbul branch for putting together such a scientific platform on which the issues of Istanbul are being discussed in an unbiased way. Mr. Naci Görür expressed our perspective as geology engineers very clearly. There are some missing points and I want to touch upon them. We have all heard that all day today. There will be 2 billion cubic meter solid waste. What is the quality of this solid waste then? I want to make an addition to what the lady from Durusu said on that issue. Distinguished participants, the solid waste will come out from Danişmen formation where the coal processed in Thrace basin. I know the coal from Thrace very closely. I advised a thesis on that issue at Istanbul

University. This coal, unfortunately is very rich in terms of toxic elements such as; arsenic, uranium and nickel. There is no information on how this waste will be destroyed, it is complete enigma. Every place that this waste will be stored will work like a time bomb. The major cause of the problems that the villagers face near the third airport is the waste dumped back in time without any processing. Therefore, this waste should also be kept on the agenda.

The second issue that I want to touch upon is that the rumour has it that this waste will be stored near Yalıköy on Black Sea coast. As you all know this region has the best raw material of glass both in Turkey and the world, the pebble stone. We as the Chamber of Geology Engineers are against wasting such a beautiful raw material.

One last point, distinguished participants, a canal is being projected and see how heated the ongoing debate is. Küçükçekmece lagoon is the result of an extraordinary balance that formed in millions of years. An enormous heritage that consists of sea, creek and lake is called a “geological heritage”. This heritage is a key issue on the agenda of many institutions including the UNESCO. So, it is an extraordinary resource that we should protect with utmost attention. Therefore, an unjustified Project filled with multiplicity of hesitations cannot ne allowed to destroy Küçükçekmece Lake. I salute you all with respect.

Uğurcan Bayer

I am also from Terkos and sister Zehra pretty much said what I would say. Yet, there are many things to be said. I would like to touch upon an issue on seismicity which was slightly ignored in the sessions. About 16 million officially and from what we observe, about 20 million people are waiting for an earthquake. This city cannot discuss this Project. There is no possible way to discuss it. Our priority has to do with taking measures for the earthquake. What kind of measures? We have discussed

it yet we did not go into the management of an emergency situation. Let's talk about the emergency a little. The professors all conveyed it. None of us experienced a night or a day in which 50.000 buildings collapsed altogether. It is ambiguous what kind of reaction we will have in such a situation. Imagine, 20 million people, will not be able to meet their needs all of a sudden. We will be victims of the disaster. We will need help. This will create a chain reaction which will take down the whole country and its economy, because the people who will be in need of help will be in enormous figures. First of all, Istanbul must be able to manage the disaster. What kind of a disaster planning must be made then? We should make a planning which allows everyone to go to work the next day of the earthquake. If Istanbul stops producing, we will all bear its consequences. This will be totally irreversible. For the earthquake transformation to be done, the central budget has to be involved. The people who are living under the conditions of hunger cannot pay for this in free market dynamics. It cannot be done in 15 to 20 years with the resources of those people. If we meet the earthquake with all these risky buildings, the situation will pretty much be as I described. I hope we will have enough time for this transformation.

Soner Alkan

"Either Canal or Istanbul Coordination" called for creating a human chain on both sides of Bosphorus against this Project on January 19. Let's support this protest as much as we can. Let's just remember now. About 6-7 years ago, during the Gezi Protests he said; "Whatever you do, this Project will be carried out". Does anyone even talk about it now? Yes we have given lives to it we have had many people injured during the protests but that Project was removed from the agenda. There is no barracks there now. Gezi Park lives on. These meetings are very valuable and we need more of these to enlighten ourselves further. But we have to take these ideas to the masses as well. With just these we

cannot carry it out. The people of Istanbul should indicate very clearly that they don't want such a Project of looting en masse. I believe, tens of thousands of people who will stand hand in hand in a chain will have an influence both in Turkey and the world. Just like Gezi, we have to remove this Project from the agenda never to get back in.

Murat Cesur

There is this one man who picked a Stone and said I will throw it. All the scientists and everyone mobilized to stop him. We are holding this meeting to prevent this casting of stone today. Because once it is cast, there is no possible way to undo it. All the scientists mobilized because of the damage that this Project will create. Back in the time again many scientists, politicians and writers warned him about something else but this friend of ours said "I was cheated". We all know who cheated back then. Later they built the third bridge and third airport. Now they insist on building the Canal. Let me tell you something; whoever is telling you to do the canal, they are the ones cheating you this time. We don't want to be governed with such cheated projects and policies. There is no chance that you will cheat us, you are lying just like you lie about everything. Passage through Bosphorus is not free now, there is a passage fee, and people have to pay for the services that you get. Istanbul should not be responsible for your miscalculation. Calculate the fees well. Get our money that amounts up to 0.17 grams per ton. We are keeping you accountable whether you get that money or not and we will keep doing so. Thank you.

Turgay Mahmutoğlu

It will be a kind of repetition but what if I tell you this: "there will be an earthquake in a minute"? What if we receive the news that there will be an earthquake in a minute, what would we do? We set out to protect our own life and the lives of the loved ones.

Now look into what we are discussing here and now. Would this canal crack or explode during an earthquake? Rather than what precautions should be taken against ship accidents, we are forced to discuss this canal. Whenever this issue comes to the agenda we should whisper to ourselves "earthquake" thousands of times to motivate ourselves. Because some sort of horse-dealer game is being played in front of us. The number one survival issue of this country is the Istanbul earthquake. One third of GDP and 20% of the overall population is concentrated in this city and we are practically saying; ok that is not enough, "let's increase the population of the city from 18 to 36 million and created two thirds of GDP here". This is the real issue of survival. The likelihood of an earthquake in Istanbul is 70% and this earthquake will destroy one third of human resources of the country in the next 30 years. Let us not assume any responsibility of that. The real survival problem is making Istanbul more of an attraction point. In the discussions we often times miss the focus of the issue. We always talk about the grey areas. We say that there will be environmental damage, water reservoirs will get lost etc. Some say it will happen some say it won't. The issue that the scientists agreed upon is this: there will be an earthquake in Istanbul in the next 30 years. The situation can be resembled to that: Imagine a householder who has a home yet he has sold everything at home. On top of that he is in debt. Then he receives money from somewhere. What would you expect him to do? He would pay his debts and secure himself and his family right? Yet, what does he do? He says he will buy a Jaguar.

Zana Gümüş

Dear participants, hello to all. I am Zara Gümüş and I am here on behalf of Istanbul Youth Studies. As youth we organized a workshop on Canal Istanbul on January 4 and we expressed that we want to have a say as the youth on the future of this city. We produced solution proposals. As Mayor İmamoğlu said, this place is

entrusted to us and we are responsible for our future. As a priority, we, as the youth, want the formation of working groups who would answer to the questions of public on a monthly basis. We also wanted be enlightened on so-called revenue of Canal Istanbul. Alongside that we believe that there is a need for transparent discussion platforms and more such workshops must be organized. We also believe that we must talk about Çanakkale (Dardanelles) as well. On page number 155 of Chapter Six on ÇED report it is stated that with Canal Istanbul coming into force, the traffic of Dardanelles strait will increase as well. They offer another Canal for Dardanelles strait too. If they set out to expand the Marmara Sea then, it should not come as a surprise. I also want to talk about what Canal İstanbul will take away from our economy. I served as the president of Turkish Student Senate. We had prepared a report with the representatives of 16 provinces and took it to all political parties. We observed that there is a serious problem in our education. With the budget allocated to Canal Istanbul you can create a huge awareness in education; you can actually create a revolution there. As of today, there are many students who take classes in 50-student classrooms because they lack classrooms and teachers in the villages of Mersin, Gaziantep and Diyarbakır for example. Rather than building this canal you can invest in these schools. Canal Istanbul is a Project that should not be done in any possible way because it will not have significant revenue. It will create serious problems not only in Istanbul but also in its hinterland, because Istanbul should never be considered as a local matter. It is not just a locality in Istanbul, it is a capital.

Metin Düzgit

A while back, a friend asked a question. Why do foreign states have a say about the projects that are done in Turkey? We get their negative assessments from time to time but they did not say anything about Canal Istanbul. I believe there is a critical issue here. Since the 14th, 15th centuries,

whoever ruled the seas ruled the world. Since the end of 15th century when the Ottoman Empire ruled Mediterranean and Black Sea, to 1520, there were two big empires that ruled the world. One of them is Spain and the other is Portugal. Portugal took over everywhere from Brazil to some parts of China. It still lives on the wealth that it made through colonialism. Spain, as you know, took over everywhere in American continent except for Brazil. Then Netherlands took over that role. Then we saw the rise of England. After England lost power with the Second World War, the United States became the hegemonic power. The English, when they were strong, supported us as in the case of Russians defeating us in the war that we call 93 War, coming all the way to the Gates of Istanbul in Yeşilköy and going back without taking over the city. The reason for that was that the British cannons positioned themselves to hit the Russian army to protect the balance back in time. The ultimate aim, back in time, was not letting the Russian go through the Bosphorus. Other than carving up the Ottoman Empire, the whole First World War was about attaining the control of the straits in Istanbul. As the case was, despite we signed the Lausanne Treaty in 1920 we did not get the control of Bosphorus for 13 years. Was it over when we got the control? No. In the Second World War, the issue of straits became a matter of threat as well. As it happened, after the ending of manoeuvres in the War, Stalin asked for the straits. What happened then? Our country had to pick a side, which until then we did not have to. As we were in the Western alliance, we became a member state to NATO. What I am trying to say is that the Bosphorus is a strategic matter for Turkey. You have listened to many speeches today. What you must remember, even if you will remember crumbs of information, it must be that the Montreux Convention is very important for Turkey. Even if it will bring the slightest risk to the continuance of Montreux Convention, this Project must be thought over multiple times. Of course, the economic and environmental sides of the issue must be evaluated separately. But this is an existential matter for our country. For some reason, neither the United States nor the West do speak on the issue.

Obviously they want to have an alternative canals which will allow NATO ships pass easily. Why is Russia silent then? Well, Russia too has different ideas. Russia too wants to get big ships pass through straits. Both sides, in line with their own interests, want to get their ships pass through. Yet, it will be us who will suffer from that. We better keep that in mind.

Oğuz Kılıç

Dear landowners of Istanbul, there are thieves in our houses. We kick them out from the doors yet they want to get back in from the chimneys. My late mother used to say; “winter will act like a winter and the thief will do what thieves do”. We kicked these guys out from the door on June 23, but they are still trying to get in from the chimney. Therefore, if they are ever able to do what thieves do, the responsibility will lie with us, the landowners. I have a proposal. Mr. Ekrem İmamoğlu, Istanbul Metropolitan Mayor hosted us very well and we have all observed that they put together a very nice workshop. I appreciate that. As a citizen who participate this meeting from the district of Beylikdüzü, this is what I suggest. As if they are selling real estate from simulation, these guys are trying to sell Canal Istanbul on television to the people of Turkey. Not with simulation but with real trips, we must bring people who do not know where Küçükçekmece or Arnavutköy is, to the Project area. It will not be possible to do it without skipping Stone on Küçükçekmece Lake, not without seeing the goats that are being milked, not without touching people there. Only when we step on to the soil, we would appreciate that soil. Even the people who live in these regions are not aware of the danger. People know as much as they hear in the teahouses and sports clubs ro what they hear from the columnists. My suggestion for our municipal mayor and his team is that they should organize ring trips across the Canal to show people of Istanbul what they have to lose. Thank you.

Meftun Gürdallar

Good evening dear friends. I am Meftun Gürdallar, a mechanical engineer. I am a former secretary general of my province in Union of Chambers of Turkish Engineers and Architects (TMMOB). If you remember, there were talks with a Malaysian company when Necmettin Erbakan was the Prime Minister. The municipal mayor of Istanbul of the time, now Mr. President, had said “building a third bridge on Bosphorus is a treason it is a murder”. He had set up Istanbul Metropolitan Planning Office and employed about 400 architects and engineers. We wanted to get information on where the third bridge would pass through. The response, back in time was, “there is not third bridge among our plans”. But two months after that, Mr. Erdoğan hopped on a helicopter and said, “Let the third bridge pass through here”. All of a sudden the started building the third bridge and talking about the third airport. They said no tree would be cut down and no zoning would take place. Today we started seeing towns forming around the third bridge. Millions of trees were cut down. When we had meetings with the management of Istanbul Metropolitan Municipality they just listened to us without saying anything and noted under the decision documents; “these decisions were made in the presence of Union of Chambers of Turkish Engineers and Architects. Now, I am feeling utmost joy to see Istanbul Metropolitan Municipality is hold rational meetings with architects, engineers and scientists. I appreciate the effort very much. However, we are up against a person who said the third bridge is treason to Istanbul and then built it himself. We are up against someone who said; “tall buildings are treason to Istanbul, we committed treason”, and then keeps building them. We are placing ourselves at the forefront to prevent yet another treason by him. We have to do anything possible with a common mind to prevent this Project. Thank you all very much. We will win this struggle, dear friends. Either Istanbul will win, or Istanbul will win.

Kaya Enişte

Good evening everyone. I would like to start with thanking Mr. Ekrem İmamoğlu, the metropolitan municipal mayor, all the staff members of municipality and all the other brothers and sisters who made this workshop possible. I salute you with love and respect too.

Let me share an anecdote. It was around 1973-74. The event took place at the architecture faculty at the university in Innsbruck. Our professor told us a story. I am trying to give you an example on how Europeans see their assets of culture and art. In 1940s, there are four legendary architects; Frank Lloyd Wright, Ludwig Mies Van Der Rohe, Walter Gropius and Le Corbusier. The issue is about Venice. Venice is under water as it is today and they decided to set up a commission to save it. Different architects from around the world are invited and asked for their opinions. Le Corbusier heads the commission; therefore he has the last say. Everyone speaks their mind about Venice. Some recommends partial destruction some recommends restoration. Le Corbusier takes the microphone, there is absolute silence. In brief he says that he went over all the projects but none of them proposed a better Venice. From that day on not a single nail has been driven in Venice. Speaking of him, the same Le Corbusier described Istanbul as the greenest city of the world with a lot of trees. See how Istanbul turned out to be today. In the sessions they said that in the case of an earthquake the Canal will easily be damaged and the ships will have accidents in much easier fashion there. What, then, will happen if these possibilities take place? Will they say, the Canal is blocked so let's open the Bosphorus? Will we use Atatürk airport if the third airport does not work? We say “no” to Canal Istanbul. Let me end my words with one last sentence. We have lost our social sensitivities. We should promote the issue in the public and resist as much as Mayor İmamoğlu. We have to walk together in this. It is great to have you. Have a nice evening. ■





POSTER EXHIBITION

Current Situation

Water
Land
History

Project Information

General Information
Environmental Issues

Proposal

A liveable Istanbul with 100 Billion Turkish Lira
Green Development Corridor

Water
Terkos Dam and Surrounding

GENERAL INFORMATION

It was put into service in 1883
 Maximum water collection capacity is **162.241 cubic meters**
 It is the **second largest water basin** in terms of capacity
 When the dam is full it can provide the whole city with water for two months
 It has a rich plantation with the forestry, heathland, fresh water and sand dune ecosystem

FLORA

It is one of the richest floras in Turkey

It hosts single piece coppice forests and flowery plants that involves **60 different species**

Most of these species are **endangered at global scale**

It has rich underwater plant species

FAUNA

In this field exists the species *stomatochlora borisi*, which is globally important

Among important mammals of the region are **long bat and European gopher**

IMPORTANT BIRD SPECIES

It constitutes the living space of a diverse bird population
 It hosts more than **10.000 aquatic birds** in winter

Important aquatic birds:
 Ferruginous duck,
 Lesser spotted eagle,
 Squacco heron






Water
Sazlıdere Dam and Surroundings

GENERAL INFORMATION

Put into service in 1998 to provide water for Istanbul

It has a capacity of **55 million cubic meter capacity** per year
 Maximum capacity of water collection is **88.730 cubic meter**

When it reaches this capacity it can provide water for one month for the whole city

FLORA-FAUNA

It is an important area of reproduction for **aquatic tortoises**

It hosts **European gopher** which has priority of protection (*Spermophilus citellus*)

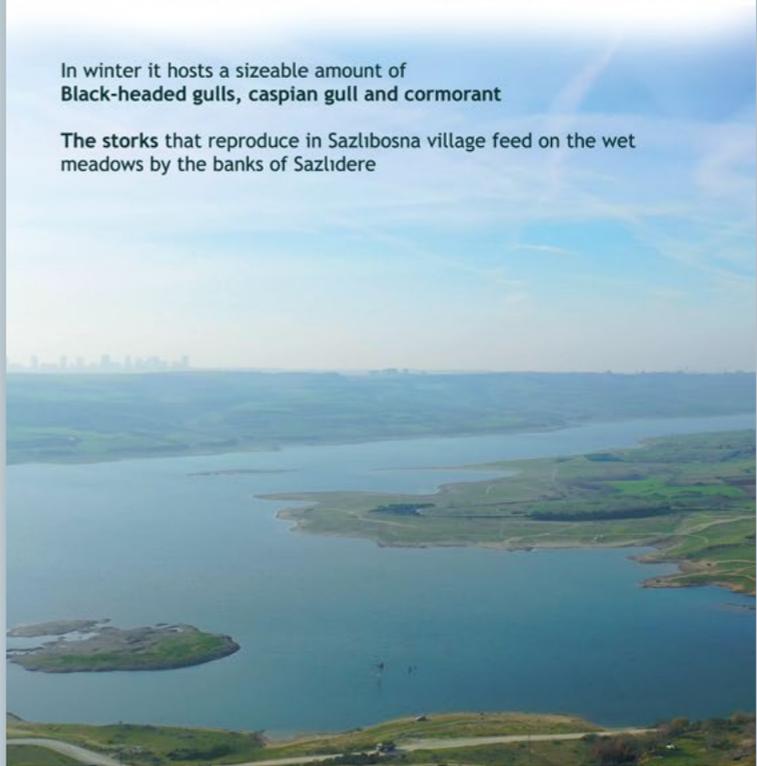
It hosts **sea-originated creatures** that are distributed to fresh and salt water

It constitutes the living space of a fish species endemic to our internal waters: **pearl fish** (*Alburnus istanbulensis*)

IMPORTANT BIRD SPECIES

In winter it hosts a sizeable amount of **Black-headed gulls, caspian gull and cormorant**

The storks that reproduce in Sazlıbosna village feed on the wet meadows by the banks of Sazlıdere





Water
Küçükçekmece
and Surroundings

GENERAL INFORMATION

Total Area 15 kilometer square
The area is removed from the status of basin protection field in 1984
It is 20 meters deep lightly salted lagoon that hosts reed beds on the North

FLORA

It hosts many species that are rare in the country and grow on limestone

It hosts globally endangered plant species that only exist in three or less places in Turkey

On the North shore it has marsh and reed vegetation

FAUNA

It contains white incissor lesser mole which is globally endangered
Emys orbicularis lives on Nakkaşdere which is globally rare
It is an important dispersion area for butterfly types; Bavius and Stranger Apollo

IMPORTANT BIRD SPECIES

The reed beds and ponds that are situated on the shores of Altınşehir and Firuzköy constitute an important living space for species of birds
It hosts 21.273 aquatic birds that include caspian gull, cormorant, winter sea and taker

The lake is also one of 97 Important Bird Areas in Turkey identified by Birdlife International and World Wide Fund for Nature (WWF)



Water
Black Sea and
Marmara Sea

MARMARA SEA

Less salted water of Black Sea create an upper stream from Black Sea to Marmara Sea

While the effects of Black sea are more visible on the surface, the deep zones are affected by Aegean sea
This influences salt and oxygen rates, and temperature

The pollution that comes from Black Sea affects Marmara Sea
Once Canal Istanbul is built, there will be a significant increase in the amount of pollution

After years, as a result of the lower layer depriving off oxygen and increasing the production of hydrogen sulphur, we may end up with a Marmara Sea that smells like rotten eggs

THE EFFECTS OF LANDFILL ON THE SEAS

The natural flow of water circulation will be affected
Especially fish, benthic invertebrate and algae will be affected

There will be a loss and division of habitat
Dumping the materials that have clay loam into the sea will create environmental issues like turbidity and decrease in oxygen



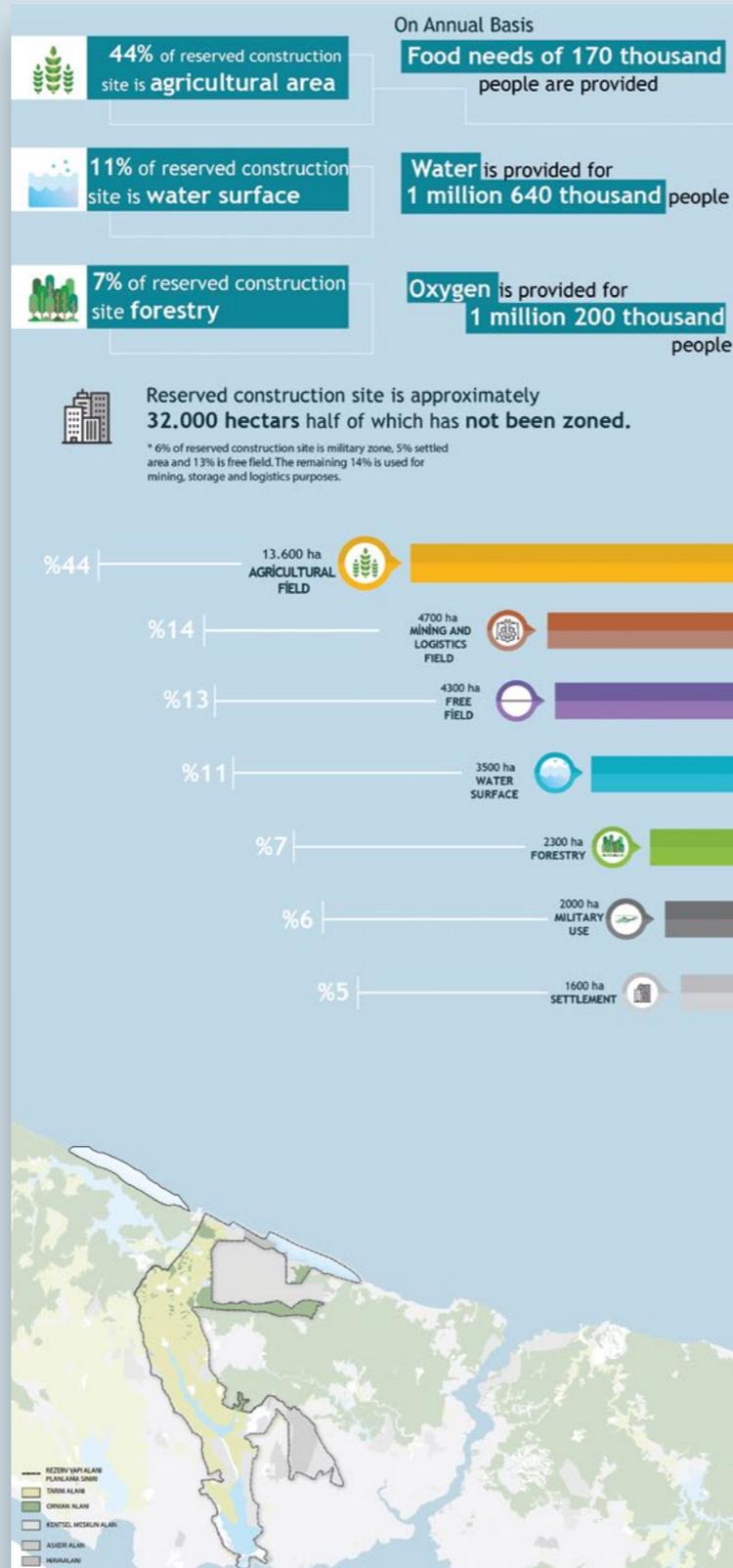
HAVZA
Koruma Kuşakları

- UZUN
- ORTA
- KISA
- MUTLAK

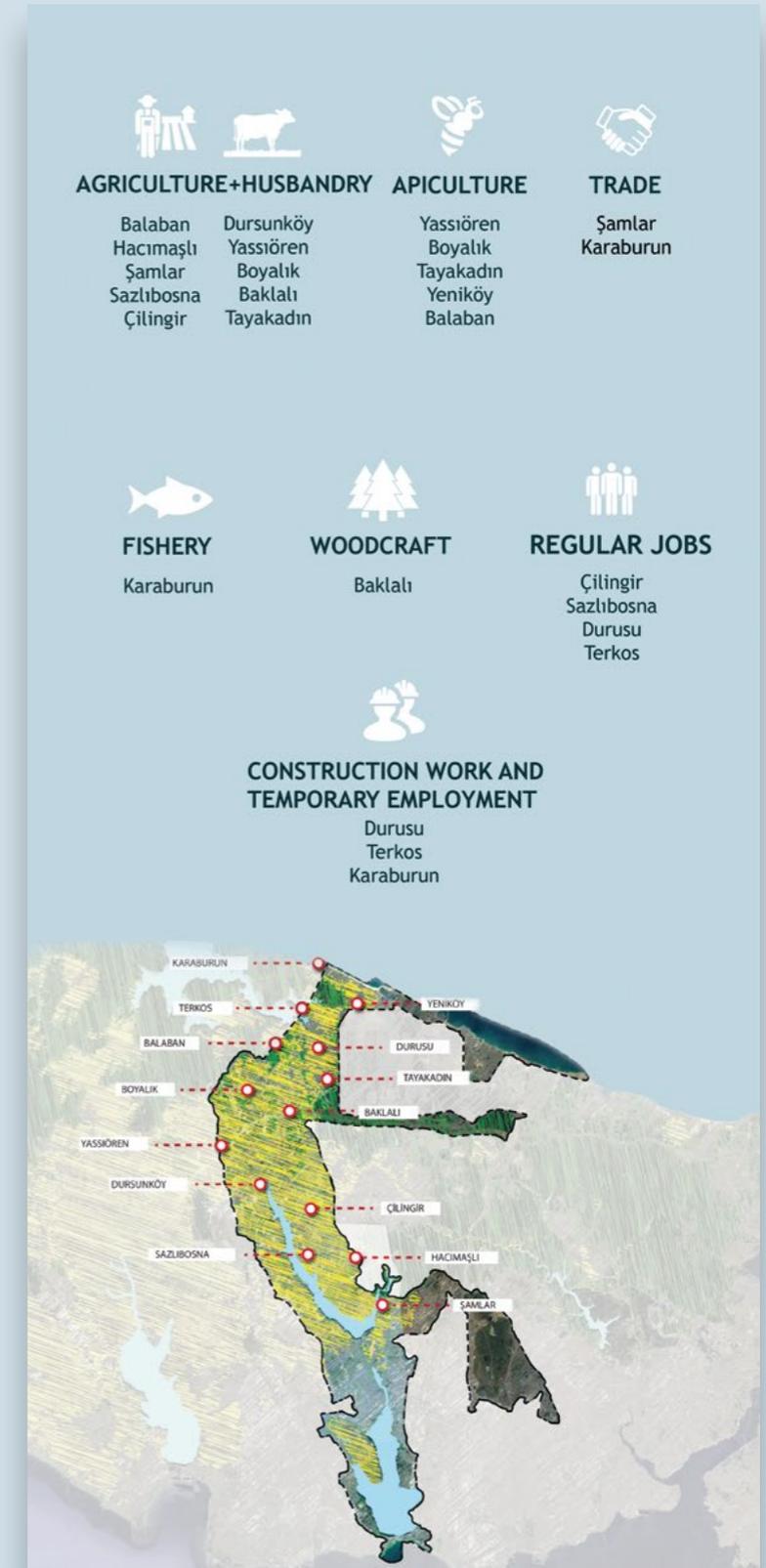
KARADENİZ

MARMARA DENİZİ

Land Use Information



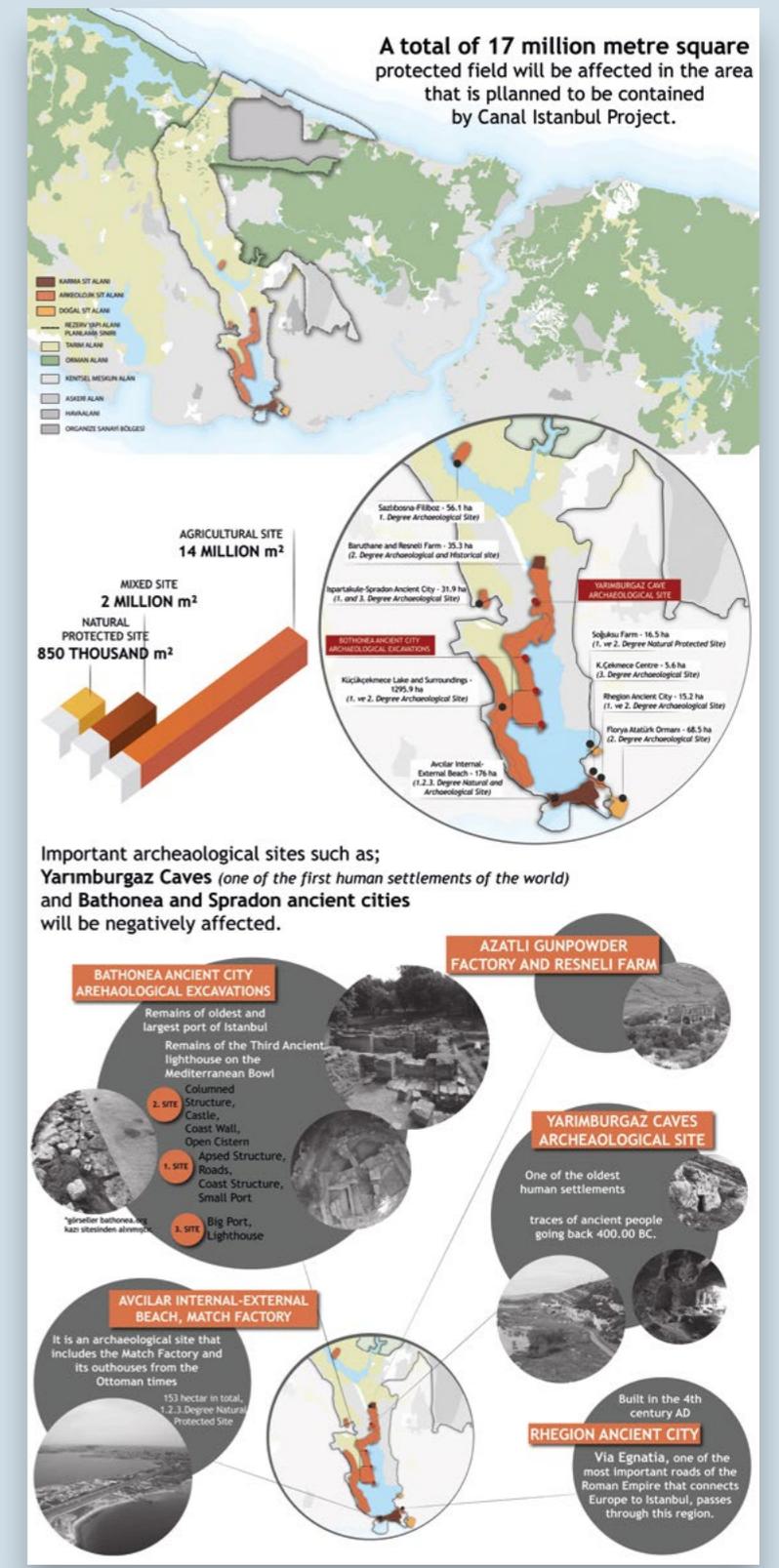
Land Basic Livelihood



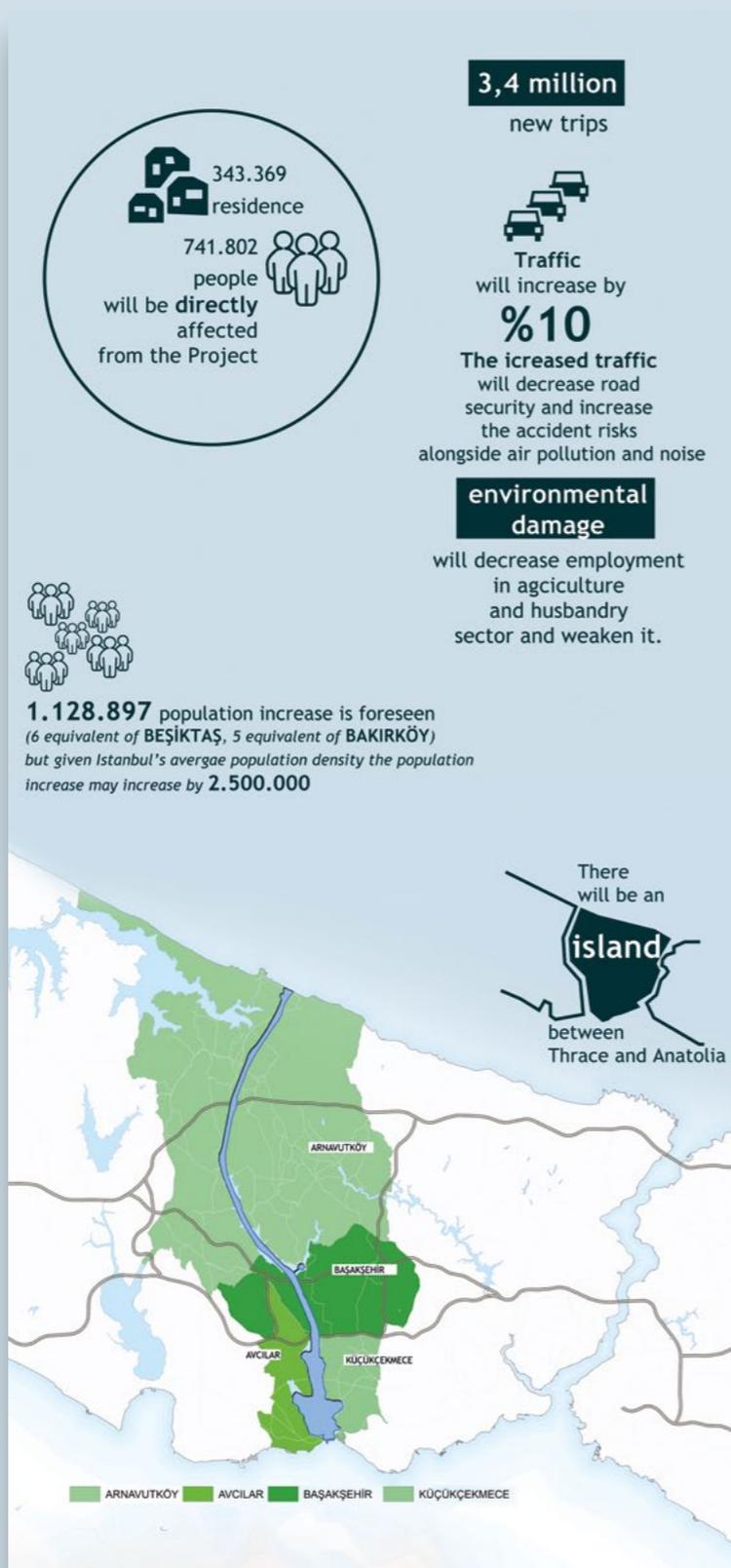
Land Problems of Rural Neighbourhood



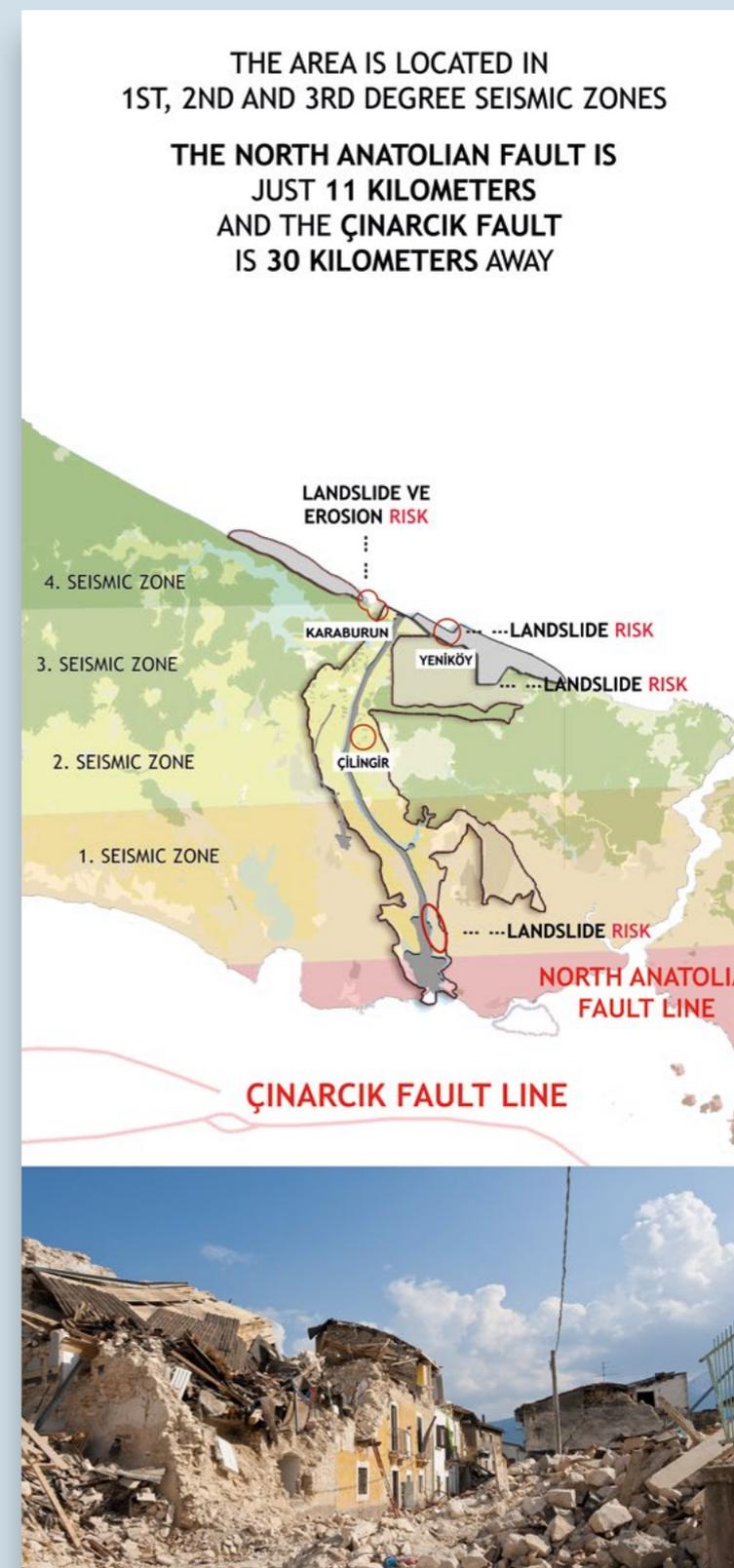
History Küçükçekmece Lake and Surroundings



Environmental Issues
Environmental Issues and General Information



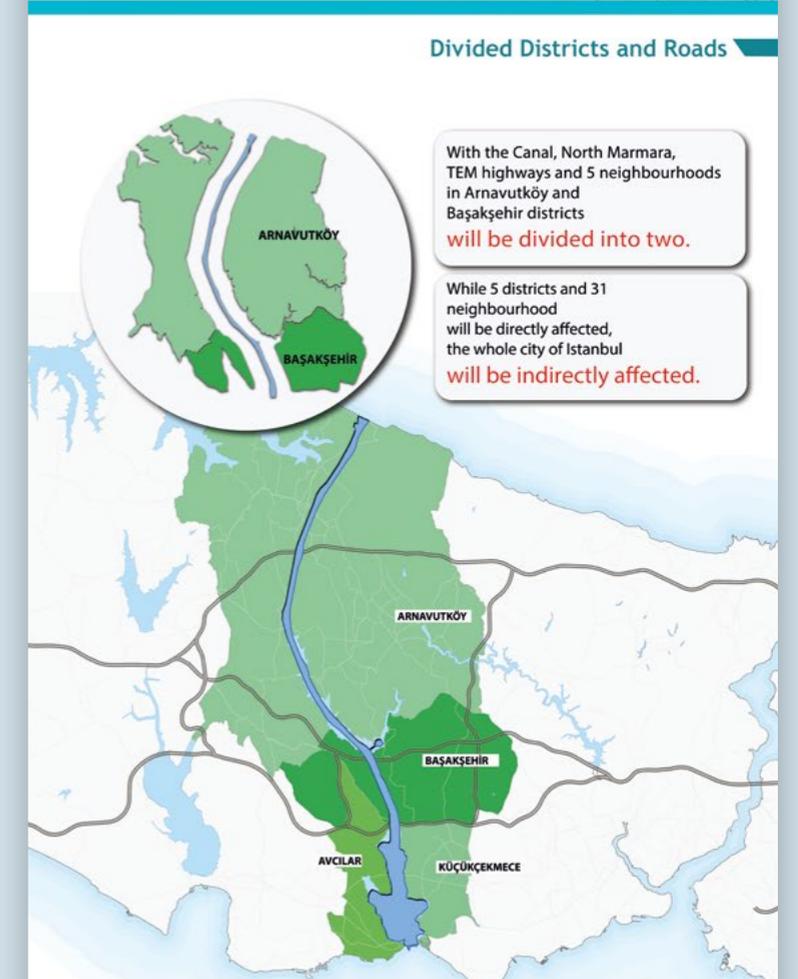
Environmental Issues
Disaster Risk



Environmental Issues
Excavation



Environmental Issues
Transportation



A liveable
Istanbul with
100 Billion TL
Social and
Urban Services



A liveable
Istanbul with
100 Billion TL
Urban
Transformation

THE ISSUE OF URBAN TRANSFORMATION COULD BE SOLVED

HOUSEHOLD AND WORKPLACE

Istanbul Total

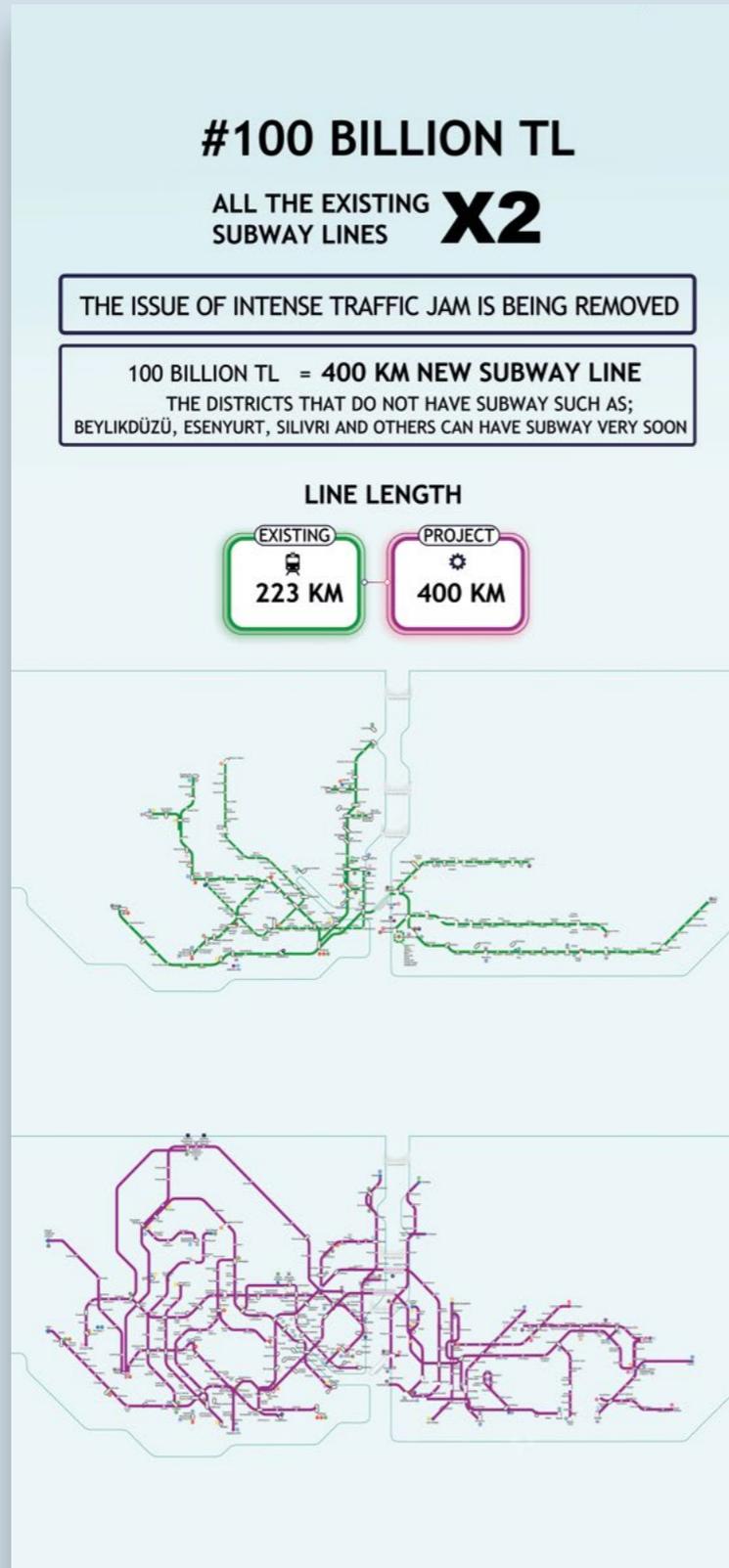
7,7 million 

100 billion ₺ could be renewed with

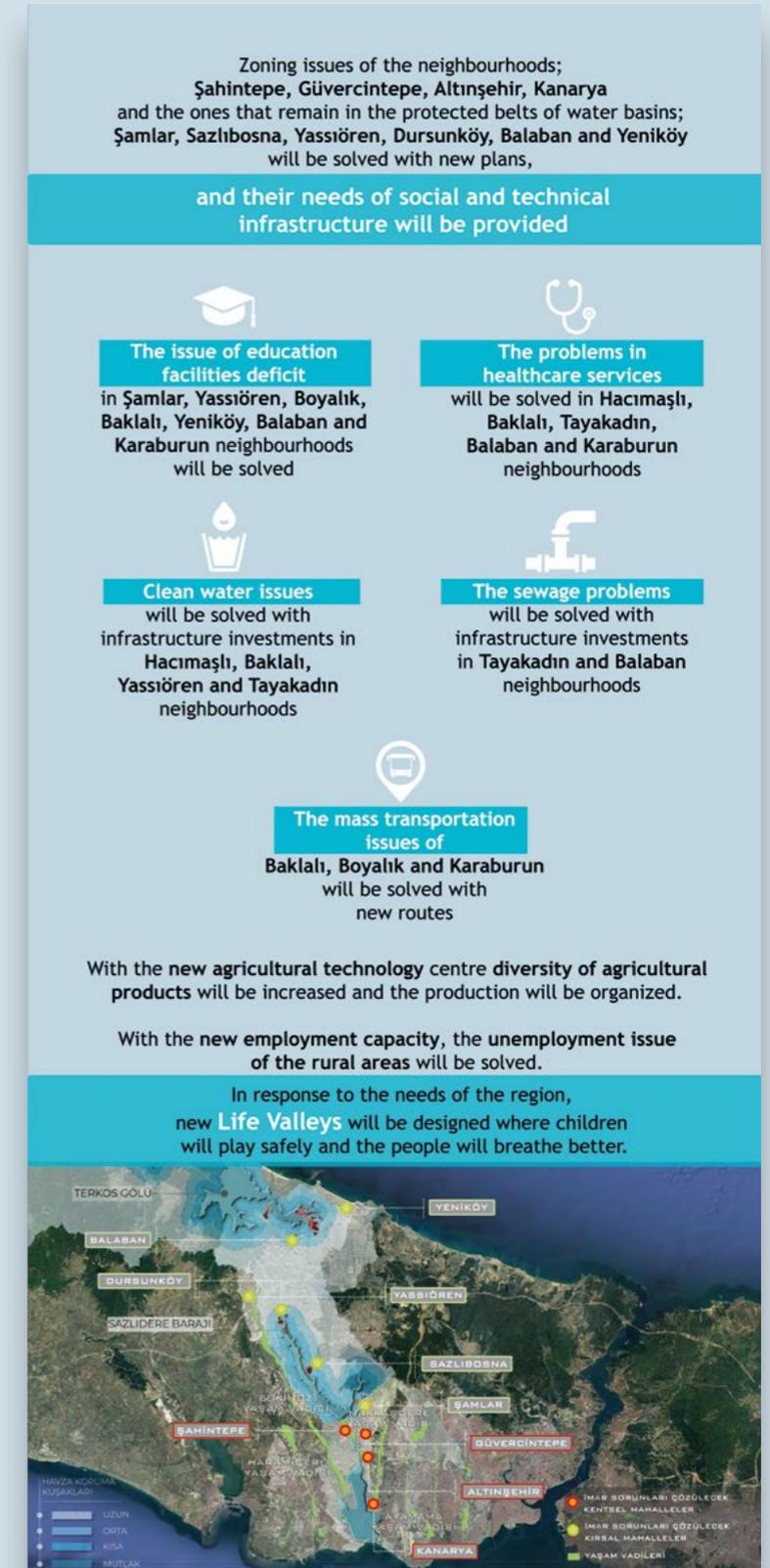
1 million 



**A liveable
Istanbul with
100 Billion TL
Transportation**



**Green
Development
Corridor.
Liveable
Settlements**

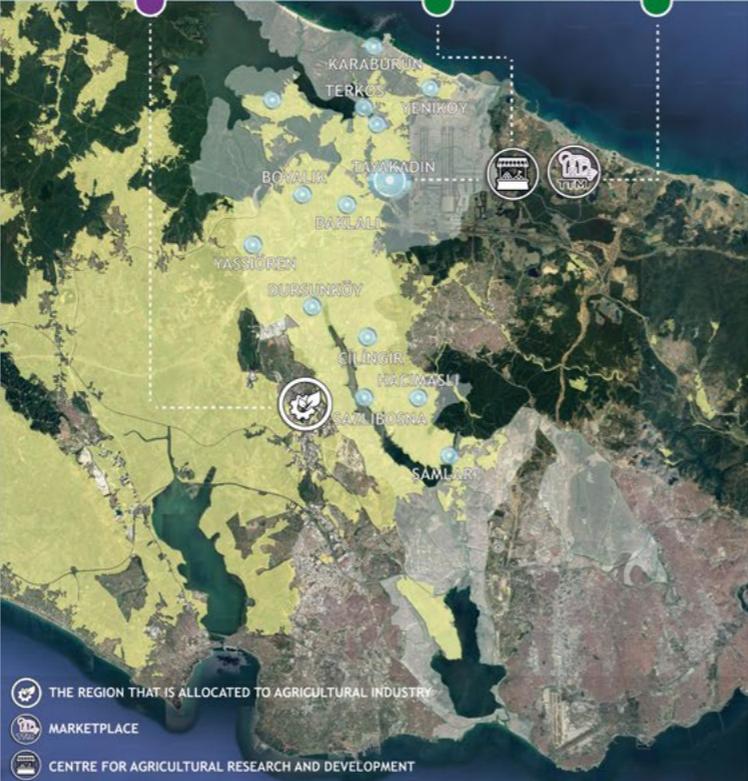


Green Development Corridor
Local Economic Development

ACCURATE AGRICULTURAL IMPLEMENTATIONS WILL BE ADOPTED

THEREFORE,
THE COST OF FERTILIZERS AND PESTICIDES WILL BE DECREASED, ENVIRONMENTAL POLLUTION WILL BE DECREASED, PLENTY AND QUALITY PRODUCTIONS WILL BE CREATED AND A BETTER FLOW OF INFORMATION WILL BE PROVIDED FOR A BETTER MANAGEMENT AND FARMING.





THE REGION THAT IS ALLOCATED TO AGRICULTURAL INDUSTRY
MARKETPLACE
CENTRE FOR AGRICULTURAL RESEARCH AND DEVELOPMENT

Green Development Corridor Tourism



with trekking routes nature tourism will be revived

Glamping tourism will be done in Balaban and Yassıören neighbourhoods

One million tourist per year will be targeted with Yarımburgaz caves

On the left side of Küçükçekmece Lake, a Water Sports Centre will be built



In Yeniköy and Karaburun neighbourhoods coastal tourism fishery will be done

Water sports will be done in Balaban neighbourhood

Activities and festivals will be done to support branding in rural areas in Baklalı neighbourhood.

**Green
Development
Corridor**
All Suggestions



