

CHALLENGES OF TURKISH HERITAGE IMPACT ASSESSMENT PRACTICES: CASE OF CANAL ISTANBUL, TURKEY

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ABSTRACT

Heritage impact assessment (HIA) which has been implemented internationally after the Vienna Memorandum aims to contribute to both development initiatives and conservation principles. However, Turkish impact assessment practices still display inactive relationships with cultural heritage although the country developed alongside prior global experiences. Istanbul pioneered planning interventions and large-scale urban regeneration in Turkey, which has been the country's primary connection to global markets. Due to Istanbul's reputation as an investment centre defined by the government, the balance between conservation and development has become shallow. While Turkey introduced legislative measures from European perspectives, the country began to drift apart in terms of the logic behind HIAs since 2005, when the urban regeneration era commenced. In this context, Istanbul Canal exemplifies the Turkish approach of HIA, at the intersection of conservation and development, grounded exclusively in Turkish legislation. Established on the Canal Istanbul Environmental Impact Assessment (EIA) practice, this study investigates the challenges encountered by Istanbul's cultural heritage, due to the hierarchical structure of the planning system, the adoption of international conservation and management principles, and the EIA–HIA processes and procedures. It considers that the deep-seated problems within the Turkish conservation–planning structure can be attributed to the ineffective HIA, and the results could contribute to the improvement of impact assessment mechanisms. *Keywords: Canal Istanbul, conservation, cultural heritage, heritage impact assessment.*

1 INTRODUCTION

Heritage impact assessment (HIA), defined as the process of evaluating potential impacts of any development on cultural properties [1], can be dated back to the National Environmental Policy Act (NEPA) dated 1969 [2] when environmental impact assessment (EIA) was introduced to the world. Among the conditions which led to the creation of an impact assessment framework, not only the natural environment but also archaeological values are defined within the scope of the affected environment. Destruction of archaeological sites from large scale developments, especially dams and highways were included within The Reservoir Salvage Act in 1960 [3], and by the National Historic Preservation Act (NHPA) [4], the effects of developments on cultural properties were recommended to be considered. Similarly, it was 1967 when UNESCO's international campaign to safeguard Abu Simbel and 1968 when Recommendation concerning the Preservation of Cultural Property Endangered by Public or Private works [5] called attention to preservation of heritage against development proposals. Influenced by international practices, Turkey also had rescue operations commenced in 1966 in the Lower Euphrates Basin where the Keban Dam Project was proposed by the State Hydraulic Affairs. There had been surface investigations, documentation of cultural heritage and excavations conducted by multi-disciplinary team from multiple universities [6]. Therefore, it is possible to call the 1960s as a decade of the first steps towards HIA taken by archaeological impact assessment (AIA).

In addition to AIAs, visual impact assessments (VIA) became widespread in the 1970s. In 1972 The Convention Concerning the Protection of the World Cultural and Natural



Heritage was adopted and it was followed by the first United Nations Conference on Human Settlements [7] that reveals the breakdown of social relationships and traditional cultural values due to the rapid urbanisation, Recommendation concerning the Safeguarding and Contemporary Role of Historic Areas [8] that connects social, economic and cultural ties within the historic environment and considers harmonisation of new buildings and visual integrity. In 1976, a visual resource management system that encourages VIA methods for a better decision-making process in landscapes was established by the US [9]. While AIA and VIA were added to the EIAs, Turkey put legislation on conservation areas.

Both the 1980s and the 1990s are important as nature conservation-based impact assessment practices began to evolve into wider frameworks by the concept of sustainability. Furthermore, regulatory measures for the EIAs were increased and cultural heritage was recognised as an impact assessment topic. Charter for the Protection and Management of the Archaeological Heritage [10] specified development projects as one of the greatest threats and it draws attention to the implementation of AIAs together with the appropriate legislation. This was discussed in the First National Symposium on Protection and Evaluation of Archaeological Conservation Areas 1991 [11] Some countries such as France and the UK, also put archaeological and cultural heritage into their EIA regulations whereas Turkey followed the EU's perspective, and the first Turkish EIA legislation was introduced.

Known as the strategic thinking period, from 2000 to 2010 there was a search for harmonisation of impact assessment with conservation not only worldwide but also in Turkey. After the European Strategic Impact Assessment (SEA) Directive, the first connection between spatial planning and EIA in Turkey was set via MATRA [12] which aims to adopt EU directives into the Turkish impact assessment system. However, these initiatives have also faced many amendments to support development. In the field of conservation, on the other side, management plan and HIA practices started parallel with the global perspectives such as the cultural impact assessment framework of INCD [13] and Vienna Memorandum [14] which again focused on the impact of contemporary development on world heritage sites by the historic urban landscape approach. Hence, the 2000s was the last phase for HIA to be recognized globally until 2011 when Guidance on Heritage Impact Assessments for Cultural World Heritage Properties was published by ICOMOS.

Since 2011, HIA has been used as a conservation and management tool for historic environments. The efforts to establish the two-way link system of impact assessment–planning–conservation on the other hand still fall behind the times compared to EIA. However, the ICOMOS Guidance is still the main document for HIA practices globally. Turkey, on the other hand, has not provided any legal basis for the use of an international approach, and it has become a challenge to carry out HIAs actively within the current planning–impact assessment–conservation mechanism. Although there are 17 cultural and 2 cultural and natural world heritage sites, there is not any national guidance for the HIA that affects enhancement of 21,023 national conservation areas [15] effectively.

Hence, this study focuses on the Istanbul Canal EIA experience, the report of which was prepared based only on the Turkish legislation. As the deep-seated problems between the Turkish conservation–planning structure can be attached to the primary difficulties associated with a practical HIA, the challenges of HIA are examined in terms of problems within the hierarchical structure of the planning system, the adoption of international conservation and management principles into practice, and the EIA–HIA procedures and processes. While the EIA practice of the Istanbul Canal Project lists all weaknesses in the Turkish HIA, it reveals the requirements for an effective HIA as well.



2 CANAL ISTANBUL

Canal Istanbul, which is alleged to be a project from the Ottoman Era, was proposed by Prime Minister Erdogan in 2011 [16]. Promoted as a water transport project to preserve Bosphorus, the Canal Istanbul Project includes not only the creation of an artificial waterway, but also the erection of new developments along the canal. The canal was designed to follow the route of existing water resources of the city that include Küçükçekmece Lake, Sazlıdere Dam and Lake Terkos, respectively [17]. It is 45 km long, 20.75 m deep, and 275 m wide at the narrowest portion. In addition to the canal, the Black Sea and the Marmara Sea are each proposed container ports, and one marina serves as a logistics centre. Apart from the canal and associated facilities, following Law 6,306 regarding the Transformation of Areas Under the Disaster Risks, 33,498 hectares surrounding the canal has been designated as a “reserved residential development area” [18]. Although Canal Istanbul (Fig. 1) and the so-called New City (Fig. 2) are outlined together, they are produced and presented separately.



Figure 1: Model of Canal Istanbul and the New City [16].

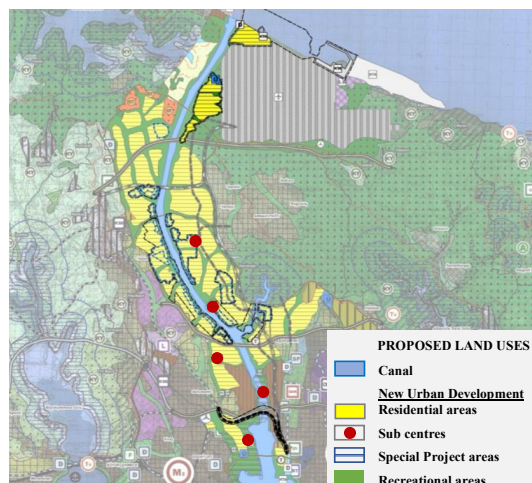


Figure 2: The plan of the “new city” together with Canal Istanbul [17].

The objective of the canal project considers the preservation of Bosphorus as a natural value, and the Historic Peninsula, as a prominent cultural heritage site in Istanbul by decreasing the number of ships [19]. The location of the project and the proposal of the new city reveal the alternative path that targets the use of protected natural values of Küçükçekmece Lake and Sazlıdere Dam, whose ecological and biological habitats [20] would be lost for the canal. Additionally, the Marmara Sea would become deoxygenated [21], and together with the new urban expansion, loss of agricultural land and deforestation would accelerate.

3 HIA CHALLENGES OF CANAL ISTANBUL

3.1 The hierarchical structure of Turkish planning system

The project, which is a top-down decision, serves cross-purposefully in terms of its objective with the upper-scale Istanbul plan. It also represents Turkish planning instruments, and institutions that define the decision-making system for the approval of government-led projects. The 1/100,000 scale Istanbul Environmental Plan, 2009 is the spatial development framework of the city that puts basic decisions for development and conservation plans. It was prepared according to the EU development perspective and the National Development Plan, which focuses on the balance of economy–ecology for a liveable city [20].

Based on the sustainability of natural values as thresholds and population projections, the carrying capacity of Istanbul for 2023 is determined to range between 16 and 18 million people by the plan, and the main planning principle is described as *The spatial development to be in harmony with the natural and cultural environment, respecting the cultural heritage, taking care of the needs of future generations* [20]. Therefore, the plan aims to control the population, stop the tendency of urban sprawl towards the north and supports multi-centred linear development along the east–west axis on the Marmara Sea.

According to the 2009 Plan, the area between Sazlıdere Dam and Küçükçekmece Lake, where the canal is located, should refrain from new development and it should remain as a controlled zone [20]. However, Canal Istanbul and the New City propose population of 500,000 on the north–south axis where the protected areas of environmental sustainability, including cultural heritage sites emphasized by the 2009 Istanbul Environmental Plan exist. Hence, the project is not only a canal project but also a new settlement venture, where a new canal passes through [22]. As the compliance of transportation decisions with land use plans and the process of demand management has not been managed well until present times [23], the acceptance of the project against the upper scale plan has been accepted without considering any objections.

Furthermore, neither the EIA report nor the plan of the new city, refers to the conservation decisions proposed by the 2009 plan. In addition, 1/5,000 scale plans were prepared based on the new city do not indicate any decisions related to the cultural heritage sites. Contrary to the 2009 plan, lower scale development plans defend changing the linear macro form of the 2009 plan. None land use analysis map of 1/5,000 plans, recognises conservation areas. Instead, there are labelled “empty land” and “other land” in plans. Hence, if the project is implemented, cultural and natural values will risk extinction.

While the spatial decisions of Canal Istanbul are inharmonious with the approved upper-scale purposes, dilemmas introduced by planning laws and institutions specify the decision-making process of the project. There are seven legislations, regarding planning instruments for creating spatial plans, projects, and the implementation of EIA and SEA (and HIA), some of which were changed for the sake of the Canal Istanbul Project. The MEU is the primary



Table 1: Turkish legislation for HIA practices and their role in Canal Istanbul.

Legislation and authority	Aim	Role in HIA of Canal Istanbul
Law on the Protection of Cultural and Natural Assets (1983) – Ministry of Culture and Tourism (MCT)	To determine the definitions related to movable and immovable cultural and natural assets that need to be protected	Consultation: cultural heritage conservation decisions
Environmental Law (1983) – Ministry of Environment and Urbanisation (MEU)	To protect the environment, in line with the principles of a sustainable environment and sustainable development.	None
Land Development Law (1985) – MEU	To ensure all lands and settlements are met the appropriate planning, science, health, and environmental conditions.	Project design: Construction of waterways (Change in Law-by-Law no. 6,704)
EIA By-law (1993/2014) – MEU	To regulate administrative and technical procedures and principles to be followed in the Environmental Impact Assessment (EIA) process	Assessment of effects on cultural heritage “Archaeology Report”.
Law of Transformation of Areas Under Disaster Risks (2012) – MEU	To determine the procedures and principles regarding improvement, liquidation and renewal in areas that are at risk of disaster and to create a healthy and safe living environment	Legitimization of proposed developments
By-Law on Spatial Planning (2014) – MEU	To determine the procedures and principles for the construction and implementation of spatial plans and decisions that protect and develop physical, natural, historical, and cultural values, and support sustainable development	None
SEA By-law (2017) – MEU	To integrate environmental elements into the preparation and approval process of plans/programs that are expected to have significant impacts on the environment in line with the sustainable development principle to ensure environmental protection.	None

actor for the impact assessment and approval of the project and the plan (see Table 1). Although By-Law on Spatial Planning (2014) [25] includes conservation of heritage, high-level sustainable development, and procedures of spatial decisions, no role for the relationship of spatial decisions for Canal Istanbul was determined. Instead, there have been changes to the Land Development Law (1985) [26] affecting the construction of the canal, and the Law of Transformation of Areas Under Disaster Risks No. 6,306(2012) [27] remains the basis for the plan of the new city to be developed in conservation areas. In addition, even



though “sustainability” is mentioned, both in the Environmental Law, and SEA regulation, neither of them constitutes an essential effect on the decision-making process of Istanbul Canal.

3.2 The adoption of international conservation and management principles

Directly related to the problems within the Turkish planning system, there has been lack of coordination between spatial (conservation) plan and management plan of cultural heritage areas. The Law on the Protection of Cultural and Natural Assets (1983) [28] comprises documentation and identification of heritage buildings and sites, approaches for physical protection of cultural heritage, and preparation of conservation plan. Management plan on the other hand was added into the law after it was introduced by the World Heritage Centre, and the management framework has been applied only for WHS in Turkey. Likewise, the perspective of managing change, assessing impacts of changes, and their specialization cannot be built on solid ground as the current conservation-management mechanisms in Turkey goes without the available capacity to shape HIA. As the conservation, management and HIA approach of Canal Istanbul relies on national guidance, it points to the issues regarding the adoption of international principles.

As “the physical location of a place is part of its cultural significance” [29], the axis chosen for the canal includes the significant number of cultural heritage sites. Küçükçekmece Lake and Sazlıdere Dam have attracted attention since the early ages of settlement history. Yarımburgaz, which is in the northwest of Küçükçekmece Lake, is a Middle Pleistocene Period cave formed approximately 1,000,000 years ago [30]. It is not only the most critical archive reflecting the prehistoric cultures of Istanbul, but also one of the first human settlements in Europe, dating to 600,000 BC [31]. Apart from Yarımburgaz Cave (Fig. 3), there are cultural properties from the Hellenic, Roman, Byzantine, and Ottoman periods of Istanbul, most of which are protected by the cultural heritage conservation law. However, as there is not any conservation-management plan for them, they are considered as any material asset located in the development area, and rather than the HIA report, “archaeology report” has been prepared as an annexe to the Canal Istanbul Project Report.



Figure 3: Yarımburgaz Cave. (Source: Tay Project, 2000.)

At the southeast corner of the Küçükçekmece Lake, there is an archaic settlement of Rhegion, which was part of Byzantion [32], and the ancient city of Spradon dated back to the late Roman era is in Küçükçekmece district [33]. Similarly, the Filiboz and Kurudere archaeological sites, Azatlı Gunpowder factory, Resneli Farm, and another ancient settlement near Dursunkoy [34] exist on the route to the northern part of the Canal Istanbul Project.

Along with the remains of walls, castles, and blockhouses planned as a perimeter line to defend Istanbul [35], the stratification and richness of heritage are prominent. While the Istanbul Environmental Plan considers cultural and natural heritage as a whole and proposes their absolute conservation; Canal Istanbul treats the areas as an empty land.

According to the Operational Guidelines of the Implementation of the World Heritage Convention, the sites of combined works by man and nature as illustrated by Yarımburgaz Cave are defined as “cultural landscapes” and in ICOMOS’ HIA Guidance [1], broadly classified as: archaeology, built heritage or historic urban landscape, historic landscapes, intangible cultural heritage, and associations. However, cultural values located within Canal Istanbul and the new city have been categorized as natural, visual, and cultural landscapes. They are listed in the archaeology report as archaeological areas, historic/other areas, and listed areas. Rather than expressing distinctive characteristics and heritage values of the area, the long excavation history is provided in the archaeological report. Therefore, the absence of international conservation terminology in HIA of the canal comes forward as another issue.

Furthermore, regarding the number of affected heritage assets between the project website, the EIA study, and the archaeology report. For example, while there are 32 blockhouses in the EIA report, 41 are listed in the archaeology report. Since these studies include only the borders of Canal Istanbul, and not the new city, the list of heritage properties and potential heritage assets have been devalued. There are 129 areas and/or buildings, 111 of which are listed in the total area of the project, and the plan [20]. The project declares that the Yarımburgaz and Bathenoa sites are not within the project area, although they overlap with the canal route [35]. Moreover, the possible archaeological resources, such as the area closest to the Ağaçlı Village, which will be affected by fill area [36], are oversimplified, and not considered within conservation or impact assessment studies. Hence, the primary approach of Canal Istanbul to the cultural heritage displays inconsistencies about the meaning, inventory, and potential of heritage values and fails to comply with international approaches.

3.3 The EIA–HIA procedures and processes

As the existing system of Turkish conservation planning and management include complex structures regarding the wide range of legal instruments [37], current EIA and HIA practices are already ineffective. This is contrary to the integrated process of conservation, management, impact assessment, and project development [38], [39]. In addition, the necessity for qualified and experienced HIA teams [1], [40] and their active relationships with project owners and conservation bodies [13], [41], [42] are not met by the HIA or EIA of Canal Istanbul. As a result, the desired standards for managing change and conservation of cultural heritage do not converge on impact assessment.

The ideal impact assessment process has twelve steps, six of which are part of the comprehensive impact assessment: description of the project, affected environment and alternatives; definition, prediction, assessment, and mitigation of impacts; production of impact assessment report; review of the impact report/study; consultation and participation; and final decision [43]–[45]. For the HIA, however, values of the affected cultural heritage site and significance assessment [1], as well as cultural, indigenous, and social assessments are prerequisites for a proper study [46]–[49]. Since the Turkish HIA system has not been established, HIA studies are conducted under EIA, in concordance with characteristics of development or features of an affected environment as being only “the world heritage”. Therefore, if development is applied for financial support from international institutions, the impact assessment team will follow the guidelines of the institution, and if the affected



environment is listed as a world heritage, documents and suggestions by UNESCO and advisory bodies will be respected.

The process and the approach of HIA for the assessment of Canal Istanbul are unique as HIA, which is an archaeology report, has been prepared based on ICOMOS' Guidance and Turkish High Council for the Conservation of Cultural Property's "Principle decision on the protection of immovable cultural assets affected by the dam areas" [17]. Contrary to the expected, as mentioned, impact analysis does not show proper HIA features. For instance, in comparison with the best practices [50] and cultural heritage standards for investments [49], regarding description and protection of the affected heritage environment, the Canal Istanbul HIA study fails to identify heritage values advised by ICOMOS [1]. While the scope of HIA should be guided by cultural heritage [46], procedures are not clearly defined or explained by either the Canal Istanbul EIA Report or the Archaeology Report.

On the grounds of discrepancies in the pre-assessment stages, significance assessment and impact assessment phases have led to undesired results for heritage values. These two technical procedures constitute the core of HIAs. According to Lambrick et al. [51], and Historic England [52], while the significance of cultural heritage is assessed, sensitivity to change should be determined, and the effects of all proposed changes on each heritage value and element should be studied in detail. To understand the features of cultural heritage, it is necessary to represent the setting in which heritage values have evolved historically [53]. However, the archaeology report provides basic information on some assets but not the significance. Hence, the domino effect of previous stages increases exponentially, and application of the overall impact assessment advised by ICOMOS [1] is open to discussion.

In the impact assessment process, all potential effects and development proposals should be considered [50], [54] and direct–indirect, negative–positive, long-term effects within the project phases should be evaluated [51]. In this context, the heritage impacts of not only the canal project but also the docklands and other land developments, originating from New City should have been considered by HIA (Fig. 4). Nevertheless, there is very little information concerning the impacts of the canal. Furthermore, the grading scale for the value of the

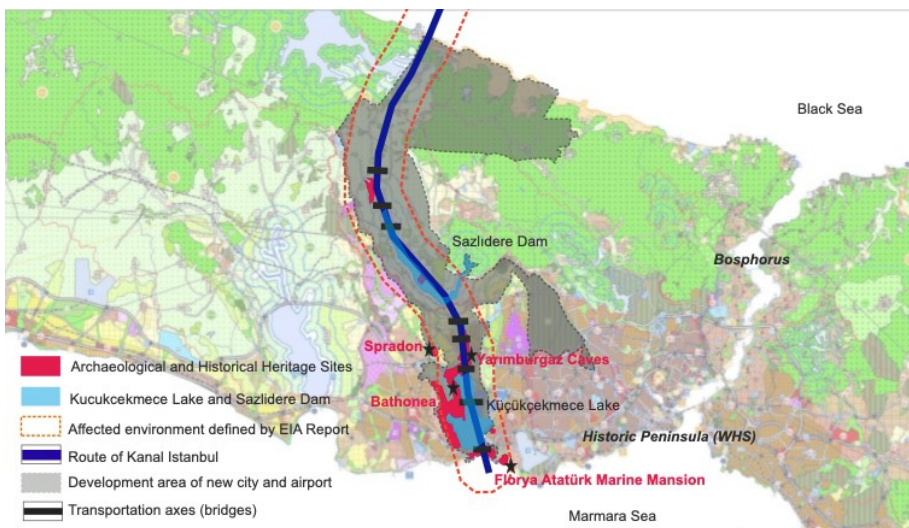


Figure 4: Cultural heritage sites within affected environment of Canal Istanbul and the New City.

heritage asset and significance of the effect proposed by ICOMOS contains 5- and 6-point scales whereas they are 3- and 4-point scales in the report. As a result, the matrix provided by the archaeology report, based on ICOMOS Guidance [1], exhibits an unusual approach. In addition, general proposals, such as following the conservation council's advice, and preparation of a management plan were disregarded by the council [55]. Hence, there is no framework within HIA to pursue the project-cultural heritage relationship for Canal Istanbul.

HIA studies conducted for the project also question degrees of reliability and transparency. Consulting with and receiving opinions from the public from the initial steps of a project and impact assessment studies to determine affected properties and communities, is considered a standard approach [1], [40], [49], [50], [53]. Similarly, implementation of successful mitigation measures to reduce or remove identified impacts depends upon consultation with the public authorities, local communities, administrations, NGOs, and cultural heritage professionals [48], [56]. Moreover, for the review of the HIA, the secondary team composed of these actors [53] and agreement with affected people [47] are expected to be considered by heritage impact studies. In the Canal Istanbul experience, however, passive participation was represented in all stages of the impact study, that only public authorities were asked for judgment, which limited influence on project design. Documentation of the participation by local people and additional actors was provided by attaching meeting minutes to the main EIA report. Based on these notes, participation was considered only to be answering questions, which exemplifies avoiding interactive activities and demonstrates a lack of transparency throughout the process.

4 CONCLUSIONS

This study outlined the recent challenges of HIA practices in Turkey derived from the Canal Istanbul Project. Three prominent challenges were discussed in relation to the hierarchical structure of the planning system, the adoption of international conservation and management principles, and the EIA-HIA procedures and processes. Although the HIA background in Turkey can be described as an imitation of the world's conservation and EIA practices, the inter-relationship of three challenges based on problems within planning, conservation, and impact assessment mechanisms lead to an ineffective HIA approach for Turkey. When HIA problems of Canal Istanbul are analysed, it is recognized that the canal and new city proposals contrast sharply with Istanbul's Environmental Plan, which was respectful to heritage sites. Even if the Canal Istanbul Project and the new city plan were created in the same context, they were not presented together, culminating in only one impact assessment study. The shallowness of the heritage protection approach by these two developments continues in the EIA and HIA processes as well. Additionally, misinterpretation of international conservation and HIA principles has benefitted Canal Istanbul which puts development pressure on heritage areas. The failure of the HIA study in terms of description of cultural significance, impact assessment, and lack of participation and management appears to have been performed intentionally. Despite its identification of the tension between conservation and development in Turkey, Canal Istanbul case highlights the need for contemporary changes for the management of heritage sites, supported by an integrated conservation-impact assessment framework.

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