Draft Comprehensive Environmental Evaluation (CEE) for the Construction and Operation of the Turkish Antarctic Research Station (TARS) at Horseshoe Island, Antarctica

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Working paper submitted by Turkey

Summary

A draft Comprehensive Environmental Evaluation (CEE) has been prepared by Ministry of Environment and Urbanization (MoEU), the Scientific and Technological Research Council of Turkey (TÜBİTAK) Marmara Research Center (MAM) Polar Research Institute (PRI), and Istanbul Technical University (ITU) for the proposed construction and operation of Turkish Antarctic Research Station at Horseshoe Island. The draft CEE has been prepared in accordance with applicable provisions of Annex I, Article 3 of the *Protocol on Environmental Protection to the Antarctic Treaty* and the *Guidelines for Environmental Impact Assessment in Antarctica* (2016).

This CEE describes constructional and operational activities, reference environmental conditions, identifies potential impacts resulting from the proposed activity, discusses alternatives to the proposed activity, predicts impacts and presents mitigating measures regarding the planned activities. The CEE concludes that the scientific and logistic advantages of the proposed activities will overcome its environmental impacts which is expected to be greater than minor or transitory.

Circulation and translation of the CEE

Turkey notified the CEP Chair of the availability of the draft CEE for ‘Construction and Operation of Turkish Antarctic Research Station (TARS) at Horseshoe Island, Antarctica’ on 13 February 2021. Considering the procedures for intersessional consideration of Draft CEEs (CEP XX Final Report, Appendix 3), CEP Chair issued CEP Circular 6 / CEP XXIII on 15 February 2021 advising CEP contact points of the availability of the draft CEE; stated the need to establish an open-ended intersessional contact group (ICG) to review the draft CEE report; proposed that Australia’s CEP representative, Mr Ewan McIvor, convene the ICG.

The CEE report, was available in English for download from <http://lodos.mam.gov.tr/kare/Draft_CEE_of_TARS.pdf> and via the CEP Workspace on the Secretariat of the Antarctic Treaty website: <https://www.ats.aq/devAS/EP/CEPWorkspace>. All ICG correspondence was available to CEP Members and Observers via the CEP Discussion Forum. A link to the English language version of the full draft CEE was posted to the Discussion Forum, together with French, Russian, and Spanish versions of the Non-Technical Summary and the Guidelines for Environmental Impact Assessment in Antarctica (the EIA Guidelines) adopted under ATCM Resolution 1 (2016).

CEE findings

The draft Comprehensive Environmental Evaluation (CEE) report has been prepared regarding the construction and operation of the Turkish Antarctic Research Station (TARS) that is proposed to be established at Horseshoe Island in Antarctica. A non-technical summary of the draft CEE has been prepared and attached to the present working paper.

Polar research activities of Turkey gained momentum after being taken under the auspices of Presidency of Republic of Turkey in 2017 and, subsequently, 5-year National Polar Science Program was announced which outlined a roadmap for future polar science activities. Since then, annual scientific Antarctic expeditions have been organized which Turkish scientists have an intense demand for participation for conducting field research. A temporary scientific research camp was established on Horseshoe Island in 2019, however, the camp had limited capacity to meet logistics requirements for scientific activities. Therefore, a need for a scientific research station has arised to increase the quality and the quantity of the scientific research to be conducted in Antarctica.

The station is designed for optimal use by 24 (max. 50) people and planned for an operation of minimum 25 years. The construction will consist of mostly pre-fabricated modules to reduce the construction workload and waste. The proposed draft version of TARS includes a main building, an energy center, a treatment center, fuel tanks, wind turbines, solar panels, two hangars, and an emergency shelter. Energy efficiency, reduction of waste generation, and fuel consumption using renewable energy sources of solar energy and wind power, along with maintaining safety and wellbeing of the scientific team were the main design principles for the operation of the station. The energy requirement will be supplied by renewable energy sources, followed by generators. TARS will be constructed in two stages over two consecutive Antarctic summers.

Potential environmental impacts caused by the construction and operation of TARS have been determined as air emissions, waste and wastewater, noise, fuel and oil spills, and effects to flora and fauna. Mitigation measures and relevant monitoring programs will be applied to minimize the potential impacts. Present draft CEE report prepared puts forth that operating the station will pose an impact on the environment; however, the probable impacts will be minimized by implementing the proposed protection measures. Thus, the establishment of TARS is highly recommended as its advantages, overcome its environmental impacts which is considered to be more than minor or transitory.

Response to ICG

Republic of Turkey is grateful to Antarctic Treaty Secretariat, the chair of CEP, Australia for convening the ICG, and to all ICG participants for their valuable comments on the draft CEE. Turkey will present a preliminary response to comments received to date during its presentation of the CEE at CEP XXIII.

Comments raised by the ICG process, and any additional comments made during discussions at CEP XXIII, will be addressed in the final CEE.