

## **The effects of political factors on intensification of dust storms in the Euphrates–Tigris River Basin**

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### **Extended Abstract**

#### **Introduction**

Dust storms in the arid regions of the world and in particular in the deserts have been imagined as a usual event, but recently they have taken widespread facets and have become as a significant problem because of the climate changes and environment destructions resulted from human activities.

Dust storms in the Middle East have affected wide areas of the region. Many factors have affected the emergence of natural phenomenon, directly or indirectly. Based on this idea, dust is influenced by different factors such as political agents expanded in different areas, especially in the Euphrates–Tigris River Basin.

#### **Methodology**

Using library findings, the paper is to investigate the role of political factors creating dust in the Euphrates–Tigris River Basin. The research question based on “descriptive-analytic” method is “which political factors has intensified dust phenomenon in the Euphrates–Tigris River Basin?” The results show that war, the status of political management of the space and political-security conditions have been effective to intensify dust phenomenon in the Euphrates–Tigris River Basin.

#### **Results and discussion**

**War and armed conflicts:** Library findings show that political factors have been effective on intensifying dust phenomenon in the Euphrates–Tigris River Basin:

Iraq and Iran war (1980-1988), Iraq’s invasion to Kuwait on August 1990, the US and its coalition forces’ invasion to Kuwait in order to drive out Iraq’s forces and the US and coalition forces’ invasion to Iraq in 2003 has made the space of Iraq more critical. Iraq’s deserts have

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been faced with martial conflicts and consequently widespread destruction due to transportation of army vehicles. In 1991, the movement of the US tanks toward desert damaged the protective layers of soil. In Persian Gulf War in 1990, 375000 shelters, trench, ammunition caches and the holes made by arsenals were made in Kuwait and in Iraq. Totally, 35000 tanks, 2500 armored personal carriers caused a considerable disorder in dust and sand and soil layers of deserts.

To facilitate army forces mobilization and increase in the maneuver power, Saddam regime started drying the marshlands to control their residents. Then, the army performed a big attack on wetlands residents using mortars, and land attacks. Wetlands were deprived of their input water and today less than 10 percent of wetlands have been remained.

**Weakness in political management of the space:** Weakness in management of water sources is one of the most important reasons of dust problem. This variable which includes change in the passage of rivers, dam establishment and over-use of water sources, is among the factors that causes plains to get dry. Management of the water sources in Iran, Iraq, Turkey and Syria has provided the conditions for dust creation in wetlands. Dam establishment is an obvious example having hydro-political dimensions. With decrease in inputted water to downstream, the soil loses its moisture, vegetation is degraded and dust is formed with wind blowing.

**Security and political conditions:** Iraq and Syria are not desirable and the number of citizens and civilian death due to fights, bombing, domestic upraise, religious-sectarian conflicts show the political insecurity and instability. These conditions intensify dust phenomenon and make it a priority in the policy and management of these countries. Basically, the weakened government cannot manage the geographical space of the country, properly.

### **Conclusion**

Dust phenomenon is one of dangers made by human and nature interaction that has expanded and became a serious problem due to the issues such as wrong managerial policies and incorrect water resource control, climate changes, drought and wide destruction of the environment and water-soil sources. The dust phenomenon affected by many issues like political factors have been expanded in Southwestern Asia, especially in the Euphrates–Tigris River Basin. The present study has investigated dust phenomenon in the Euphrates–Tigris River Basin. It was shown that there are many factors which intensify dust phenomenon in the Euphrates–Tigris River Basin. Political factors include armed conflicts and war, inability and weakness in political management of the space and instable political- security situations. Martial forces have paved the way for dust through changing in river paths. Inability and weakness in political space management in general and water management in particular are among the factors intensifying dust. Dam establishment on the Euphrates–Tigris River Basin is an example of incorrect water management. In recent years, security conditions of the area have caused death of hundreds of civilians, especially in Syria and Iraq. These conditions affect authorities' ability to manage and control dust phenomenon and this issue do not get priority over Syria and Iraq's policies.

**Keywords:** Dust, Political Factors, Euphrates–Tigris River Basin.