

## **A Novel Model for Assessing and Managing the Challenges in the Palestinian Water Sector**

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### **Abstract**

Palestinian Water Sector is an important sector in area subjected to high water stress. By regional standards Palestine is suffering from an advance state of water scarcity, with the lowest access to water resources, low availability, which led to low water consumption, poor water services, and high cost. In addition to that the Palestinian water sector suffers from lack of academic works which are necessary for establishing valuable strategies addressing this critical situation. This research is coming to fill this serious gap. The methodology is based on a combination between quantitative and qualitative methods. It is based on the use of measurable values for some observable evidence in order to monitor changes, assess outcomes and predict the future expectations. It begins by collecting data. where huge amount of data is needed for a comprehensive understanding of the water sector, then a set of performance indicators is built to express the situation in numerical form, these indicators are chosen and determined according to the literature review and water expert's opinions, after that the indicators are used to create a creative index to express the situation in a numerical form. The results show that accurate evaluation of the situation of the water sector is very important in order to effectively managing it. In conclusion the research provides water experts and governmental policy makers with a clear diagnosis of the challenges of the Palestinian water sector, and with a new water management model based on proactive actions to cope with the exceptional situation.