Beat: Business

Phosphate, Iraq’s neglected wealth

Iraq's wealth

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USPA NEWS - Iraq is a country that has all the elements of an economic renaissance: natural resources, a competent workforce, and a youthful population. If you ask any Iraqi about their knowledge of the mineral wealth in the country, they will mention oil, gas, and phosphates. While everyone is familiar with oil and gas and their uses, as well as how the state benefits financially from the significant investment in this sector, only a few Iraqis are aware of the immense wealth and billions that can be derived from investing in and developing the phosphate industry in Iraq.

Iraq boasts promising reserves of oil, with current fields located in Basra, Kirkuk, Nineveh, Maysan, and Kurdistan, although these do not represent the sole oil wealth. There are also promising oil reserves in Anbar, Najaf, and Karbala, with some specialists expecting the Anbar field to rank second in Iraq in terms of reserves. However, dependence on oil is steadily decreasing, and the world is now seeking cheaper and environmentally less harmful solutions. The development of the phosphate industry in Iraq will contribute to the establishment of the fertilizer industry in the country, resulting in increased cultivated areas and reduced pollution it generates.

The heavy dependence on oil in the Iraqi economy has been a significant challenge. This research aims to discuss the definition of phosphates in general and explore their potential for investment. Additionally, it will examine the positive impacts that the development of the phosphate industry can have on specific areas. The paper will also highlight the provinces that are rich in this mineral and explain how their local economies, as well as the central state economy, stand to benefit.

Phosphates primarily consist of tri-calcium phosphate ($Ca_3(PO_4)_2$), which is not directly usable due to its poor solubility in water. Instead, it must undergo drying and purification processes, which involve the removal of organic matter and carbon dioxide, as well as the separation from clay. These processes ultimately lead to the production of one of the most crucial phosphate derivatives, phosphoric acid (H_3PO_4). Phosphorus pentoxide is commonly employed to assess the quality of phosphates (OSP Group).

There are three main types of phosphates:

sedimentary rocks Phosphate

Phosphates of igneous origin

Guano phosphate

The first type is phosphate with sedimentary rocks, and it is found in Iraq. This type is of utmost importance as it is the most widespread and commonly used, constituting 80% of global phosphate deposits. The concentration of phosphorus pentoxide in this type typically ranges between 20% and 30%. Abundant reserves of this type are available in the western region of Anbar Governorate, specifically in the Akashat district of Al-Qaim, where studies confirmed by the Iraqi Geological Survey estimate a stockpile of 7.5 billion tons. It is also expected that phosphate deposits will be present in the governorates of Nineveh, Karbala, Najaf, and Muthanna (Iraqi Geological Survey).

Unfortunately, government institutions have not dispatched teams to discover phosphates in these provinces. However, many specialists in this field believe that Iraq’s reserves could potentially reach 10-12 billion tons if experts were sent to explore and study these areas.

Phosphate plays a crucial role in numerous important industries, particularly in a developing economy. The fertilizer industry stands out as the most significant, as phosphate serves as its raw material. This places it at the top of the purchasing list for agricultural countries and fertilizer-producing nations like Russia and China. According to information from the World Bank, Iraq consumes 234.5 kilograms of chemical fertilizers per hectare, equivalent to 23.5 kilograms per acre (World Bank). The agricultural land area in Iraq is

approximately 18 million dunums, as reported by the Iraqi Ministry of Agriculture.

The cost of fertilizers is prohibitively high for any agricultural country. Therefore, establishing the fertilizer industry in Iraq becomes a crucial step toward ensuring food security. In light of the priority given to national security, especially following the Russian-Ukrainian war, reducing heavy dependence on oil becomes paramount. This, in turn, would lead to diversifying the Iraqi economy, safeguarding it from the “Dutch disease.” This economic concept, defined as the apparent relationship between the prosperity of economic development resulting from the availability of natural resources and the decline of the manufacturing (or agricultural) sector, carries detrimental effects. The mechanism behind this disease lies in the fact that an increase in natural resource revenues (or foreign aid flows) strengthens the country’s currency compared to others. Consequently, the cost of exports rises relative to other countries, while imports become cheaper, rendering the manufacturing sector less competitive (Soros).

Furthermore, the settlement of the fertilizer industry will contribute to the fight against desertification, which has devastated agriculture in the provinces of Anbar and Muthanna. Desertification encroaches upon the fertile lands of Iraq in the sedimentary plain, specifically the middle and southern Euphrates region. Addressing desertification is only possible through agriculture, making it an essential factor in combating this issue.

As for the other industries that utilize phosphates, Ray Hook’s article titled “What are the different industrial uses of phosphates” provides valuable insights. He mentions the pharmaceutical industry, where phosphates serve as a crucial component in the manufacturing of various pharmaceuticals, particularly cosmetics and dental care products such as toothpaste and creams. Additionally, phosphates find application in the production of paint, plastics, and paper. The food industry also relies on phosphates, as they are present in canned or pre-cooked foods and soft drinks (Hook). Furthermore, phosphates play a role in the treatment and purification of drinking water.

This issue holds significant relevance to Iraq, as it faces various challenges, including the improper disposal of sewage waste into the Tigris and Euphrates rivers without proper treatment. This practice has had adverse effects on water quality, agriculture, and the aesthetics of cities. It is worth noting that 95% of Iraqi cities are situated along the banks of these two rivers.

According to the Phosphate Forum of the Americas (PFA), there are several other applications of phosphates, which include:

Semiconductor industry

Fire retardant clothing industry

High-tech electronics industry

Processing various types of ceramics

Cosmetic industry

Animal feed industry

From the information provided earlier, the reader now understands the significance of phosphates for both industry and agriculture. It is now necessary to delve into the consequences of not investing in phosphates, as well as the obstacles hindering the development of this industry in Iraq. According to an article in the New Arab magazine, Iraq has incurred annual losses exceeding one billion dollars due to the neglect of phosphates since production came to a complete halt in 2014. Even prior to that year, production did not exceed 250,000 tons, which is merely a fifth of the production in Akashat alone (Ahmed Eid).

The barriers to progress include the lack of security in the remote western region of Iraq, primarily due to the sparse population and challenges in deploying security forces. Additionally, rampant corruption and the influence of warlords and armed forces further impede progress. Ahmed Al-Mahlawi, the district commissioner, has affirmed that the phosphate factories are prepared for investment, and foreign companies have expressed interest in investing in them. However, the failure to pass the necessary

investment laws has hindered this process as well. In conclusion, the obstacles encompass legal and security issues, coupled with corruption and neglect.

In conclusion, Iraq is a country full of natural and human resources that contribute to a giant economic renaissance at the level of the region and the world, but the Iraqi economy now depends heavily on oil, despite the presence of other natural resources on top of which are phosphates, and the importance of phosphates lies in the large reserves that Iraq contains, where It is considered the second largest reserve in the world. As we mentioned earlier, the development of this industry will revive eight other economic sectors (fertilizers, mineral industries, food, health, military and...)One of the factors of additional strength for this resource is that it is located in remote areas far from the political and commercial centers, which made those areas suffer from neglect, poverty and unemployment, so the recovery of this industry will reduce the burden placed on the residents of these areas by finding work and building service centers there. In this case, the burden on the oil-producing provinces that suffer from pollution is reduced, and the pressure on the public sector, which suffers from a large number of employees and the desire of graduates to work in it, is relieved.

In order to reach these goals, the investment law must first be reviewed and the articles related to the investment of non-oil natural resources approved, by resorting to specialists from university professors, geological and environmental researchers, and others to give a complete picture to the competent committee. Secondly, that the armed forces tighten control over the phosphate-rich areas in Anbar, Nineveh, and Najaf, and end the era of warlords and armed forces. Thirdly, focusing on giving priority in employment to the people of those provinces, mainly to get these areas out of a state of misery and deprivation. An infrastructure of roads and residential buildings must also be built in those areas in order to accommodate the workers and technicians who will work there and those who come from abroad and from the rest of Iraq.

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