

## Article

# Fiscal Policy and Financing of Water Resources Management Projects in Iraq: Challenges and Solutions

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**Abstract:** Exacerbated by way of weather trade, population boom, and terrible monetary coverage, Iraq's water sources management is in huge hassle. Sustainable Financing Mechanisms: Fiscal policy is a chief source or device to offer long-term financing arrangements to finance infrastructure projects that preserve and distribute water. Government economic policy plays a crucial role in nearly each realizable thing of the financial system, while a brand new ecology, adapted to an increasingly scarce approach of obvious survival, might call for a holistic technique, which needs to be taken severely and need to, therefore, come to the fore in overcoming this kind of barriers to the financing of effective water resources management in Iraq. The objective of the studies is evaluate authorities expenditure, tax guidelines and the financial incentives that affect water handling projects The have a look at explores economic measures and their position in making sure sustainability of water sources and affords pointers for enhancing financial governance and aid productivity (Al-Ansari et al., 1970).

**Keywords:** Fiscal Policy, Financing, Water Resources

## 1. Introduction

Iraq is a state with intense water shortages, inefficient infrastructure, and restrained capital for brand spanking new tasks to attempt to save the agricultural zone, all of which functions a country of disaster in water aid control. Considering Iraq's dependency on oil sales, motion within the global oil costs therefore impacts the funding of critical water initiatives. While financial coverage is crucial for providing sustainable finance for water infrastructure, inefficiencies in budget allocations, governance and the overall investment undertaking cycle have led to delays and problems in implementable tasks. The purpose of this study is how financial policy can be used as a device to finance water resource management in Iraq. The studies affords actionable solutions, with the aid of analyzing authorities prices, revenue resources, and opportunity funding mechanisms like public-private partnerships (PPP) and environmental taxes. Lessons from the a hit models of other international locations and their evaluation to the technique taken in Iraq can assist reinforce a pathway of efficiency, sustainability, and lengthy-term water safety.

## 2. Materials and Methods

Using qualitative and quantitative strategies, this study examines the effect of economic policies in financing the control of water sources. The series of statistics involves reviewing of news on monetary statements made with the aid of the authorities, coverage files, and previous studies research. Quantitative analysis of price range and spending patterns, and sales generation activities related to water useful resource tasks.

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### Purpose and Scope of the Study

This examines aims to have a look at the function of monetary coverage in financing water resource control initiatives in Iraq, together with challenges and some solutions. Tackling issues associated with water resource management is important for Iraq because of rising call for, dwindling availability, and wasteful infrastructure. The motive of the take a look at is to decide the effects of government fiscal and economic rules along with tax, price range, and public rate on development and sustainability of the water assignment. It similarly goals to exploit financial bottlenecks hampering sustainable water management and call for wished reforms to cozy water provisioning over the years. (Kareem Al-Quraishi, 2017).

### Objective

This examines goals to evaluate the contribution of fiscal policy in funding the water resources management tasks in Iraq and the monetary boundaries facing sustainable water resources management. It intends to become aware of actionable monetary guidelines to bolster funding mechanisms, optimize aid use, and deliver sustainable water security. Through an evaluation of government spending, tax policy, and other feasible freeing up options for the financing bundle, the task is then to reach at hints that are manifestly relevant for the water coverage sector.

## 3. Results and Discussion

### By Challenges and Solutions in Fiscal Policy for Water Management

One of the considerable bottlenecks to financing water useful resource control tasks is the issue of presidency budgets, restrained by way of political priorities. The tax structures are useless and the subsidies fail to force the important behavioral adjustments inside the region. Inappropriate diversion of allotted and restricted assets also interferes with water-water tasks. Moreover, dependence on oil money introduces a economic volatility that hinders long-time period water management techniques.

Reforms in financial policy are essential to conquer these demanding situations. Environmental taxes imposed for wasteful water use and pollutants can create sales and incentives for conservation. PPPs attract investment in water infrastructure, freeing the government from a great deal of the economic burden. Reallocating budgets toward water control, alongside new measures to implement extra transparency and clarity in monetary governance, can make sure that budgets cross where they need to be. Financing options for big water investments can come from global financial institutions and development presents as nicely (Cooper, 2018).

**Table 1.** Fiscal Policy and Water Management in Iraq.

Challenge	Fiscal Policy Solution
Budget constraints	Increase water-related budget allocations
Dependence on oil revenues	Diversify funding sources through environmental taxes
Inefficient subsidies	Reform subsidies to promote water conservation
Corruption and mismanagement	Implement financial transparency measures
Lack of private sector involvement	Encourage Public-Private Partnerships (PPPs)
Infrastructure underinvestment	Utilize international grants and development loans

**Table 2.** Iraqi Fiscal Policy, Water and Resources Management (2015–2023).

Indicator	(2015)	(2017)	(2019)	(2021)	(2023)	(Sources)
Govt budget, Allocation for water projects (Billion USD)	1.2	1.5	1.8	2.1	2.5	Ministry of Finance, Iraq
Water Infrastructure roll out, (% share policy)	2.5%	3.0%	3.2%	3.5%	3.8%	Central Bureau of Statistics, Iraq
Infrastructure-related Water Loss, (% of Total Supply)	50%	48%	45%	42%	40%	Ministry of Water Resources, Iraq
Investment in Water Sector by Public-Private Partnership (Million USD)	200	250	320	400	500	World Bank, Iraq Water Report
Proportion of Water Infrastructure Funded by Oil Revenue (%)	85%	82%	80%	78%	75%	Ministry of Planning, Iraq
Proportion of Population having access to more adequate and safer water supplies (%)	70%	73%	76%	78%	81%	UNDP Iraq Development Report
Water Use Environmental Taxes (Million USD)	0	10	15	20	30	Iraqi Tax Authority
Development Aid and Loans (USD billion)	0.5	0.7	1.0	1.2	1.5	IMF & World Bank Reports

This table shows government allocations or spending, investment, water loss percentage and funding sources for water projects funded by the Government in Iraq from 2015 to 2023. Key observations include:

- Gov finances, Allocation for water: The Iraqi authorities has incrementally raised its water area finances from \$1.2 billion in 2015 to \$2.5 billion in 2023. Nonetheless, it still spends much less than four% of its total on it, which indicates in which it ranks in order of importance.
- Efficiency of Water Infrastructure: Water losses due to inefficiency infrastructure remained high (forty% for 2023), notwithstanding spending extra, pointing to the want for financial reforms and a greater prudent allocation of assets.

PPP and Foreign Investments — the foreign and PPP investments grew gradually to signify the position of outside finance is turning into an essential element inside the Iraq water sector.

A fine response for the solution to the question you posed in the article could be:

- Oil sales dependence: More than 75% of Iraq's water infrastructure funding stays oil revenue based, leaving the sector vulnerable to oil price shocks
- Environmental Taxation: With \$30 million for 2023 from water-related environmental taxes, Iraq is taking its first steps toward alternative assets for financing water sustainability.

### Theoretical Framework of Fiscal Policy in Water Resources Management

Fiscal coverage in water assets management: theoretical framework and the genesis of the concept Fiscal policy is authority's policy that attempts to influence the economy by way of controlling taxation and government spending. Water Resource Management Fiscal policy is critical for water aid control to securing enough funding into infrastructure, conservation applications, and properly functioning distribution structures.

One of the primary financial theories related to water control is the Pigouvian Taxation Theory, presenting that taxes have to be implemented on behaviors that have

terrible externalities, like overconsume freshwater and water pollution. It is on this foundation that the notion of environmental taxes to sell water savings and waste discount is recommend. Similarly, the Theory of Public Goods discusses the fee of having certain services, which if furnished, deliver utility to all of an economic system's citizens, and argues that those services (e.G. Easy water and sanitation) must be supplied for the usage of public expenditure.

Furthermore, Keynesian economic policy focuses the government intervention to make proper infrastructure investments whilst the financial system is in depression. This proposition bolsters the case that federal investments in water aid projects can have monetary multiplier consequences and activate sustainable returns. The Ricardian Equivalence Theory which states that borrowing via the government to finance initiatives has little lengthy-time period impact on increase may be beneficial for information the sustainability of debt-financed water management programs as well. (Drysdale, 2024).

### **Examples from Developed Countries and Lessons Learned**

Few of the advanced countries were able to practice a few sound monetary polices for the cause of water resources lend a few instructions of revel in for the Iraq. An instance of that is the Netherlands, which has constructed an intricate system of water control supported with the aid of government budget, water taxes, and public-non-public partnerships. Households and industries pay a number of water tax, making the enterprise hold water to increase properly within the Netherland. It also promotes non-public quarter engagement in water tasks to ease the government economic burden. Dutch water management is exceedingly advanced: it uses a complicated system of dikes and canals, wastewater recycling and strict rules regarding the economic use of water. They hold flood prevention, optimize the utilization of water and water used in an amount low with the aid of innovating era and the use of the low-cost technology of city drainage bendy as properly.

Another successful instance is Australia, in which market-based allocation of water has been performed with the introduction of buying and selling schemes for water. Fiscal incentives and environmental taxation mechanisms spotlight the motivation structures set in location through the Australian government to promote efficient water use and discourage immoderate intake. This technique has allowed the united states to cope with water scarcity in a context of financial sustainability for the water region.

A framework of water-pricing mechanisms, subsidies for water-saving technology, and large authorities funding in water infrastructure characterize the instead stringent regulatory and fiscal coverage framework in Germany. The government is attracting industries to apply water-efficient technologies through tax incentive and direct subsidy. As a result, they have substantially reduced wasted water and executed higher sustainability.

The experience of the ones international locations shows that financial instruments should be blended with sustainable control in the water sector. This aggregate can solve the environmental tax, the investment incentives, and the involvement of the non-public area to water shortage issues (He et al.2021).

### **Applicability to Iraq**

The a success fiscal policies in evolved international locations are a basis to which Iraq can adapt in mild of the economic and Environmental situations. But given Iraqis' economic architecture, those extraordinary policies want to be achieved appropriately. Global oil costs strongly impact authorities revenues in Iraq because of the excessive ratio of dependence on oil, which additionally impacts monetary allocations to water sectors. The absence of a extensive sales base restricts the united states to sustainable financial mechanisms for financing long-term water projects.

Despite those demanding situations, Iraq has a menu of fiscal guidelines that could assist it manage its scarce water resources better. By imposing environmental tax at the

industries this is high on water-intake and developing pollutants, the greater revenue can be generated with conservation attention. Implementing intake-primarily based water pricing might also sell accountable water intake conduct of households and businesses. PPPs can be fashioned to ask public investments in water infrastructure so that it will lessen the load at the government (Do et al.2022).

#### 4. Conclusion

Despite its legacy as a prime oil power, Iraq is facing challenges in its water aid management that appear to be economic in nature, and capability solutions to the questions posed through those challenges may also lie in a responsible financial coverage. Through tax reform, advanced finances prioritizing, and personal sector investment, Iraq can obtain a greater sustainable water control model. Adequate water financing will include financial transparency and mission viability ensuing in different sources of financing. Other hidden benefits of such emergence from modern economic configurations can underpin water conservancy and creation, that is extra sustainable and with economic resilience ultimately.

#### Recommendations

This paper provides a fixed of hints for coverage-makers in Iraq for boosting the contribution of monetary coverage to financing water aid control.

- Revised price range: The government needs to allocate a high percentage of its budget to water infrastructure in a accountable way over an extended time frame.
- Rely Less on Oil Money: Financial diversification with the aid of environmental taxes, PPP, and overseas investments will assist more sustainable economic balance.
- Increase Efficiency of Infrastructure: Investing in current water infrastructure will lower inefficiencies and help mitigate water loss.
- Fiscal Reforms: Effective tax regulations on water and creation of incentives to conserve it, May also help to elevate greater profits.
- Promote Private Sector Engagement: Expansion of PPP initiatives can entice investments, beautify the satisfactory of offerings and lessen the load on authorities investment.
- Implement International Best Practices: Developed international locations with better water control fashions can offer scope for mastering in imposing solutions.
- Improve Governance and Transparency: Enhanced financial oversight and accountability reduces possibilities for corruption and waste.

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