

# **Water-Efficient Irrigation Market Forecasts to 2032 – Global Analysis By Technology Type (Micro-Irrigation, Sprinkler Irrigation, and Smart/Precision Irrigation), Component (Hardware, and Software & Services), Crop Type, End User, and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Water-Efficient Irrigation Market is accounted for \$2.2 billion in 2025 and is expected to reach \$5.3 billion by 2032, growing at a CAGR of 13% during the forecast period. The water-efficient irrigation covers technologies and services that optimize water use in agriculture and landscaping, including drip systems, sprinklers, soil-moisture sensors, controllers, and precision irrigation software. It targets farms, greenhouses, golf courses, and urban landscapes. Benefits include reduced water consumption, higher crop yields per unit of water, better nutrient management, lower energy use for pumping, and improved resilience to drought and tightening water regulations.

According to the Food and Agriculture Organization of the United Nations (FAO), agriculture accounts for nearly 70% of the world's freshwater withdrawals.

### **Market Dynamics:**

Driver:

Growing water scarcity and drought conditions

Regulatory bodies and agricultural enterprises are under immense pressure to conserve water, making water-efficient irrigation systems a strategic imperative rather than an optional upgrade. This driver fundamentally shifts demand away from traditional,

wasteful methods, creating a sustained and growing need for technologies that deliver precise water application to crops, thereby ensuring both environmental sustainability and operational continuity for farmers.

#### Restraint:

##### High initial costs of advanced irrigation systems

The significant upfront investment required for advanced systems like drip or sprinkler irrigation, including the cost of components, installation, and system design, presents a major barrier to adoption. This is particularly challenging for smallholder farmers and in developing regions with limited capital. The perceived financial risk often outweighs the long-term benefits of water and cost savings, causing potential customers to defer investment. This cost sensitivity restricts market penetration and slows the overall pace of adoption across the agricultural sector.

#### Opportunity:

##### Integration of IoT and AI for precision irrigation

The convergence of Internet of Things (IoT) sensors and Artificial Intelligence (AI) analytics unlocks a significant opportunity for smart farming. These technologies enable real-time monitoring of soil moisture, weather conditions, and crop health, allowing for automated, hyper-precise irrigation. This not only maximizes water efficiency but also optimizes fertilizer use and boosts crop yields. Furthermore, this data-driven approach provides farmers with actionable insights, creating a compelling value proposition that can justify the initial investment and drive the next wave of market growth.

#### Threat:

##### Competition from traditional, low-cost irrigation methods

The market faces persistent competition from well-established, low-tech irrigation methods such as flood irrigation. Their primary advantage is a minimal initial investment, making them the default choice in many cost-sensitive agricultural markets. Additionally, a lack of awareness and technical expertise regarding the long-term ROI of modern systems perpetuates the use of these inefficient methods. This price-based competition threatens to limit the addressable market, particularly in regions where water is not yet metered or heavily regulated.

### Covid-19 Impact:

The pandemic initially disrupted the water-efficient irrigation market through supply chain bottlenecks, manufacturing delays, and labor shortages, which stalled project installations. However, the crisis also brought home the vital role of agricultural resilience and food security, leading to a renewed focus on optimizing farm operations. As restrictions eased, pent-up demand and a growing emphasis on reducing operational risks accelerated the adoption of automated and efficient irrigation solutions, helping the market recover and realign with its long-term growth trajectory.

The micro-irrigation segment is expected to be the largest during the forecast period

The micro-irrigation segment is projected to account for the largest market share, a dominance driven by its unparalleled efficiency in water and nutrient delivery directly to the plant root zone. This method is exceptionally effective in water-scarce regions and for high-value crops like fruits and vegetables, where optimizing yield and quality is paramount. Government subsidies promoting water conservation further bolster its adoption. It has a proven track record of cutting water use by up to 60% compared to traditional methods, which keeps it at the top of the market.

The software & services segment is expected to have the highest CAGR during the forecast period

The software & services segment is anticipated to register the highest growth rate, fueled by the rapid integration of digital agriculture. This growth is powered by the demand for cloud-based platforms, data analytics, and remote monitoring services that transform irrigation from a manual task into a precise, data-driven operation. Moreover, these solutions offer scalability and actionable insights that enhance the performance of existing hardware. As farmers increasingly seek to maximize ROI and operational control, investment in these intelligent support systems is accelerating rapidly.

### Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share. The region's advanced agricultural infrastructure, high rate of technological adoption, and the presence of major market players contribute to its leadership. Supportive government policies and subsidies for water conservation, combined with recurring droughts in states like California, create a compelling

regulatory and environmental push. The high concentration of large-scale farms with the capital to invest in efficiency further consolidates North America's dominant position in the global market.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, fueled by increasing government initiatives to modernize agriculture and address severe water scarcity in countries like India and China. The expanding population is driving food security concerns, necessitating higher farm productivity. Additionally, growing awareness among farmers and rising investments in smart agriculture technologies are creating fertile ground for the adoption of water-efficient systems, positioning APAC as the fastest-growing market.

Key players in the market

Some of the key players in Water-Efficient Irrigation Market include Netafim Ltd., Jain Irrigation Systems Ltd., The Toro Company, Rain Bird Corporation, Lindsay Corporation, Valmont Industries, Inc., Hunter Industries, Rivulis Irrigation Ltd., Reinke Manufacturing Co., Inc., Nelson Irrigation Corporation, T-L Irrigation Company, Irritec S.p.A., Antelco Pty Ltd., Azud, and Metzer Group.

### **Key Developments:**

In November 2025, Rivulis opened the world's largest dripper-manufacturing facility (Israel) aimed at delivering micro-irrigation solutions globally to help grow more with less water.

In August 2025, Jain received a major order for 5,438 solar-water pumps (??135 crore) under the "Magel Tyala Saur Krushi Pump Yojana Phase II", advancing irrigation and water-conservation capacity.

In June 2024, Lindsay announced a multi-year supply agreement (valued > US\$100 million) to provide Zimmatic™ irrigation systems and FieldNET™ remote tech across MENA region — aimed at increasing food production while conserving scarce water in that region.

Technology Types Covered:

Micro-Irrigation

Sprinkler Irrigation

Smart/Precision Irrigation

Components Covered:

Hardware

Software & Services

Crops Types Covered:

Field Crops

Fruits and Vegetables

Plantation Crops

Other Crops

End Users Covered:

Agricultural

Non-Agricultural

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

**What our report offers:**

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

**Free Customization Offerings:**

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

## Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

## Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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