

Smart Irrigation Market Forecasts to 2034 – Global Analysis By Component (Controllers, Sensors, Water Flow Meters; Connectivity & Communication Modules, and Software Platforms), System Type (Weather-Based Systems, and Sensor-Based Systems), Irrigation Type, Deployment Mode, Technology, Application, End User, Distribution Channel, and By Geography

<https://marketpublishers.com/r/S193FCFAB5DEEN.html>

Date: March 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: S193FCFAB5DEEN

Abstracts

According to Statistics MRC, the Global Smart Irrigation Market is accounted for \$1.9 billion in 2026 and is expected to reach \$3.7 billion by 2034 growing at a CAGR of 8.2% during the forecast period. Smart irrigation systems utilize advanced technologies including weather data, soil sensors, and automated controllers to optimize water application for agricultural and landscaping purposes. These intelligent solutions reduce water waste, improve crop yields, and lower operational costs by delivering precise irrigation based on actual plant needs rather than predetermined schedules. The market addresses growing global water scarcity concerns while supporting agricultural productivity through data-driven resource management.

Market Dynamics:

Driver:

Escalating global water scarcity concerns

Worsening water shortages across major agricultural regions compel farmers and

governments to adopt efficient irrigation technologies. Climate change intensifies drought frequency while population growth increases competing water demands from urban and industrial sectors. Smart irrigation systems address these pressures by reducing consumption by twenty to fifty percent compared to conventional methods. Agricultural stakeholders recognize that water optimization directly impacts operational continuity and profitability. Regulatory restrictions on water usage further accelerate adoption as authorities mandate conservation measures, positioning smart irrigation as essential infrastructure for sustainable food production.

Restraint:

High initial investment and infrastructure costs

Substantial upfront capital requirements for smart irrigation deployment deter adoption among small and medium agricultural operations. Sensor networks, automated controllers, and connectivity infrastructure represent significant investments beyond traditional irrigation equipment. Installation complexity often requires professional services, adding to total implementation costs. Farmers in developing regions face particular challenges accessing financing for these technologies despite long-term water savings potential. Economic pressures on agricultural margins make farmers hesitant to commit capital to unproven systems, slowing market penetration across price-sensitive segments where water waste remains highest.

Opportunity:

Integration with precision agriculture platforms

Expanding precision agriculture ecosystems create significant opportunities for smart irrigation integration with complementary farm management technologies. Soil sensors connect seamlessly with drone imagery, satellite data, and yield monitoring systems to provide holistic crop intelligence. Cloud-based platforms aggregate multiple data streams, enabling automated irrigation decisions based on comprehensive understanding of field conditions. This interoperability enhances value propositions beyond water savings alone, positioning irrigation as one component of broader digital transformation. Technology partnerships between irrigation specialists and agricultural software providers expand addressable markets while delivering enhanced farmer outcomes through integrated solutions.

Threat:

Connectivity infrastructure limitations in rural areas

Inadequate internet and cellular coverage across agricultural regions fundamentally constrains smart irrigation functionality and reliability. Remote farmland often lacks the robust connectivity required for real-time sensor data transmission and automated controller communication. Satellite-based alternatives remain costly, while mesh network implementations require significant infrastructure investment. These connectivity gaps create performance inconsistencies that undermine farmer confidence in smart systems. Technology vendors must develop offline-capable solutions with synchronization capabilities, increasing development complexity and costs while potentially compromising the real-time optimization that defines smart irrigation value propositions.

Covid-19 Impact:

The COVID-19 pandemic highlighted agricultural supply chain vulnerabilities while accelerating interest in automation technologies. Labor shortages resulting from movement restrictions intensified focus on solutions reducing manual intervention requirements. Smart irrigation systems allowed farms to maintain operations with limited personnel through remote monitoring and automated control capabilities. Supply chain disruptions temporarily delayed equipment availability, but increased food security concerns prompted government interest in agricultural technology investment. The pandemic experience permanently elevated awareness of technology's role in resilient food production, creating sustained momentum for smart irrigation adoption beyond immediate crisis response.

The Sensor-Based Systems segment is expected to be the largest during the forecast period

The Sensor-Based Systems segment is expected to dominate the smart irrigation market by providing real-time soil moisture, temperature, and humidity data for precise water application decisions. These systems eliminate guesswork by directly measuring actual field conditions rather than relying on estimates or historical patterns. Farmers increasingly prefer sensor-based approaches for their accuracy and immediate responsiveness to changing conditions. The declining cost of sensor technology and improved wireless connectivity have made these systems accessible across diverse agricultural operations. Integration capabilities with existing farm management software further enhance their value proposition for commercial growers worldwide.

The Micro Irrigation Systems segment is expected to have the highest CAGR during the forecast period

The Micro Irrigation Systems segment is expected to register high CAGR growing irrigation type as farmers seek maximum water efficiency through precise application directly to plant root zones. These systems minimize evaporation losses and eliminate runoff by delivering water slowly and exactly where needed. Expanding adoption in water-stressed regions and high-value crop production drives significant market momentum. Technological advancements in emitter design and pressure compensation improve system reliability across varied terrain. Government subsidies promoting water conservation in agriculture further accelerate micro irrigation deployment, particularly in developing nations facing acute water scarcity challenges requiring immediate efficiency improvements.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by extensive agricultural technology adoption and severe drought conditions across western states. Large-scale commercial farming operations readily invest in precision irrigation to maintain productivity amid water restrictions. Strong distribution networks and established irrigation manufacturers provide accessible technology options. Government conservation programs offer financial incentives for smart system deployment. Research institutions continuously develop improved sensing and control technologies, maintaining regional technological leadership. Professional landscaping markets further supplement agricultural demand, creating diversified revenue streams across multiple customer segments throughout North America.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by acute water stress, smallholder farm modernization, and government food security initiatives. Countries including India and China face critical groundwater depletion while needing increased agricultural output for growing populations. Government subsidies for micro irrigation and smart technologies accelerate adoption across millions of small farms. Mobile phone penetration enables affordable smart irrigation solutions tailored to regional needs. International development programs support technology transfer and farmer training. The combination of urgent water challenges, policy support, and vast agricultural areas positions Asia Pacific for

exceptional market growth.

Key players in the market

Some of the key players in Smart Irrigation Market include The Toro Company, Hunter Industries, Rain Bird Corporation, Netafim Limited, Lindsay Corporation, Valmont Industries, Jain Irrigation Systems Limited, HydroPoint Data Systems, Rachio Inc., Orbit Irrigation Products, Galcon Ltd., Weathermatic, Delta-T Devices Ltd., Nelson Irrigation Corporation, Banyan Water, Calsense, and Stevens Water Monitoring Systems.

Key Developments:

In January 2026, Rain Bird launched its "Simple-Set" Hose End Timer, targeting the residential smart market with features designed for water savings and ease of installation.

In January 2026, Hunter officially rolled out the Hunter 360 platform, a map-based standalone irrigation control system designed to manage ACC2 and ICC2 controllers without requiring a constant internet connection.

In October 2025, Rachio was acquired by Rain Bird Corporation. Under the deal, Rachio remains a wholly owned subsidiary led by co-founder Chris Klein, focusing on high-end smart home lighting and irrigation integration.

Components Covered:

Controllers

Sensors

Water Flow Meters

Connectivity & Communication Modules

Software Platforms

System Types Covered:

Weather-Based Systems

Sensor-Based Systems

Irrigation Types Covered:

Drip Irrigation

Sprinkler Irrigation

Pivot Irrigation

Surface Irrigation

Micro Irrigation Systems

Deployment Modes Covered:

On-Premise Systems

Cloud-Based Systems

Hybrid Systems

Technologies Covered:

IoT-Based Irrigation Systems

AI-Enabled Irrigation Systems

Cloud-Based Irrigation Systems

Remote Monitoring Systems

Machine Learning-Based Irrigation

Applications Covered:

Agricultural Irrigation

Non-Agricultural Irrigation

End Users Covered:

Agriculture Sector

Residential Users

Commercial Facilities

Municipal Authorities

Sports Infrastructure

Industrial Landscapes

Distribution Channels Covered:

Direct Sales

Distributors & Dealers

Online Sales

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of 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 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- 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

Contents

1 EXECUTIVE SUMMARY

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL SMART IRRIGATION MARKET, BY COMPONENT

- 5.1 Controllers
- 5.2 Sensors
 - 5.2.1 Soil Moisture Sensors
 - 5.2.2 Rain/Freeze Sensors
 - 5.2.3 Temperature Sensors
 - 5.2.4 Fertigation Sensors
- 5.3 Water Flow Meters
- 5.4 Connectivity & Communication Modules
- 5.5 Software Platforms

6 GLOBAL SMART IRRIGATION MARKET, BY SYSTEM TYPE

- 6.1 Weather-Based Systems
- 6.2 Sensor-Based Systems

7 GLOBAL SMART IRRIGATION MARKET, BY IRRIGATION TYPE

- 7.1 Drip Irrigation
- 7.2 Sprinkler Irrigation
- 7.3 Pivot Irrigation
- 7.4 Surface Irrigation
- 7.5 Micro Irrigation Systems

8 GLOBAL SMART IRRIGATION MARKET, BY DEPLOYMENT MODE

- 8.1 On-Premise Systems
- 8.2 Cloud-Based Systems
- 8.3 Hybrid Systems

9 GLOBAL SMART IRRIGATION MARKET, BY TECHNOLOGY

- 9.1 IoT-Based Irrigation Systems
- 9.2 AI-Enabled Irrigation Systems

- 9.3 Cloud-Based Irrigation Systems
- 9.4 Remote Monitoring Systems
- 9.5 Machine Learning-Based Irrigation

10 GLOBAL SMART IRRIGATION MARKET, BY APPLICATION

- 10.1 Agricultural Irrigation
 - 10.1.1 Open Field Farming
 - 10.1.2 Greenhouse Irrigation
 - 10.1.3 Precision Farming
- 10.2 Non-Agricultural Irrigation
 - 10.2.1 Residential Landscaping
 - 10.2.2 Commercial Landscaping
 - 10.2.3 Turf & Gardens
 - 10.2.4 Sports Fields
 - 10.2.5 Golf Courses

11 GLOBAL SMART IRRIGATION MARKET, BY END USER

- 11.1 Agriculture Sector
- 11.2 Residential Users
- 11.3 Commercial Facilities
- 11.4 Municipal Authorities
- 11.5 Sports Infrastructure
- 11.6 Industrial Landscapes

12 GLOBAL SMART IRRIGATION MARKET, BY DISTRIBUTION CHANNEL

- 12.1 Direct Sales
- 12.2 Distributors & Dealers
- 12.3 Online Sales

13 GLOBAL SMART IRRIGATION MARKET, BY GEOGRAPHY

- 13.1 North America
 - 13.1.1 United States
 - 13.1.2 Canada
 - 13.1.3 Mexico
- 13.2 Europe

- 13.2.1 United Kingdom
- 13.2.2 Germany
- 13.2.3 France
- 13.2.4 Italy
- 13.2.5 Spain
- 13.2.6 Netherlands
- 13.2.7 Belgium
- 13.2.8 Sweden
- 13.2.9 Switzerland
- 13.2.10 Poland
- 13.2.11 Rest of Europe
- 13.3 Asia Pacific
 - 13.3.1 China
 - 13.3.2 Japan
 - 13.3.3 India
 - 13.3.4 South Korea
 - 13.3.5 Australia
 - 13.3.6 Indonesia
 - 13.3.7 Thailand
 - 13.3.8 Malaysia
 - 13.3.9 Singapore
 - 13.3.10 Vietnam
 - 13.3.11 Rest of Asia Pacific
- 13.4 South America
 - 13.4.1 Brazil
 - 13.4.2 Argentina
 - 13.4.3 Colombia
 - 13.4.4 Chile
 - 13.4.5 Peru
 - 13.4.6 Rest of South America
- 13.5 Rest of the World (RoW)
 - 13.5.1 Middle East
 - 13.5.1.1 Saudi Arabia
 - 13.5.1.2 United Arab Emirates
 - 13.5.1.3 Qatar
 - 13.5.1.4 Israel
 - 13.5.1.5 Rest of Middle East
 - 13.5.2 Africa
 - 13.5.2.1 South Africa

13.5.2.2 Egypt

13.5.2.3 Morocco

13.5.2.4 Rest of Africa

14 STRATEGIC MARKET INTELLIGENCE

14.1 Industry Value Network and Supply Chain Assessment

14.2 White-Space and Opportunity Mapping

14.3 Product Evolution and Market Life Cycle Analysis

14.4 Channel, Distributor, and Go-to-Market Assessment

15 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

15.1 Mergers and Acquisitions

15.2 Partnerships, Alliances, and Joint Ventures

15.3 New Product Launches and Certifications

15.4 Capacity Expansion and Investments

15.5 Other Strategic Initiatives

16 COMPANY PROFILES

16.1 The Toro Company

16.2 Hunter Industries

16.3 Rain Bird Corporation

16.4 Netafim Limited

16.5 Lindsay Corporation

16.6 Valmont Industries

16.7 Jain Irrigation Systems Limited

16.8 HydroPoint Data Systems

16.9 Rachio Inc.

16.10 Orbit Irrigation Products

16.11 Galcon Ltd.

16.12 Weathermatic

16.13 Delta-T Devices Ltd.

16.14 Nelson Irrigation Corporation

16.15 Banyan Water

16.16 Calsense

16.17 Stevens Water Monitoring Systems

List Of Tables

LIST OF TABLES

- Table 1 Global Smart Irrigation Market Outlook, By Region (2023–2034) (\$MN)
- Table 2 Global Smart Irrigation Market Outlook, By Component (2023–2034) (\$MN)
- Table 3 Global Smart Irrigation Market Outlook, By Controllers (2023–2034) (\$MN)
- Table 4 Global Smart Irrigation Market Outlook, By Sensors (2023–2034) (\$MN)
- Table 5 Global Smart Irrigation Market Outlook, By Soil Moisture Sensors (2023–2034) (\$MN)
- Table 6 Global Smart Irrigation Market Outlook, By Rain/Freeze Sensors (2023–2034) (\$MN)
- Table 7 Global Smart Irrigation Market Outlook, By Temperature Sensors (2023–2034) (\$MN)
- Table 8 Global Smart Irrigation Market Outlook, By Fertigation Sensors (2023–2034) (\$MN)
- Table 9 Global Smart Irrigation Market Outlook, By Water Flow Meters (2023–2034) (\$MN)
- Table 10 Global Smart Irrigation Market Outlook, By Connectivity & Communication Modules (2023–2034) (\$MN)
- Table 11 Global Smart Irrigation Market Outlook, By Software Platforms (2023–2034) (\$MN)
- Table 12 Global Smart Irrigation Market Outlook, By System Type (2023–2034) (\$MN)
- Table 13 Global Smart Irrigation Market Outlook, By Weather-Based Systems (2023–2034) (\$MN)
- Table 14 Global Smart Irrigation Market Outlook, By Sensor-Based Systems (2023–2034) (\$MN)
- Table 15 Global Smart Irrigation Market Outlook, By Irrigation Type (2023–2034) (\$MN)
- Table 16 Global Smart Irrigation Market Outlook, By Drip Irrigation (2023–2034) (\$MN)
- Table 17 Global Smart Irrigation Market Outlook, By Sprinkler Irrigation (2023–2034) (\$MN)
- Table 18 Global Smart Irrigation Market Outlook, By Pivot Irrigation (2023–2034) (\$MN)
- Table 19 Global Smart Irrigation Market Outlook, By Surface Irrigation (2023–2034) (\$MN)
- Table 20 Global Smart Irrigation Market Outlook, By Micro Irrigation Systems (2023–2034) (\$MN)
- Table 21 Global Smart Irrigation Market Outlook, By Deployment Mode (2023–2034) (\$MN)
- Table 22 Global Smart Irrigation Market Outlook, By On-Premise Systems (2023–2034)

(\$MN)

Table 23 Global Smart Irrigation Market Outlook, By Cloud-Based Systems
(2023–2034) (\$MN)

Table 24 Global Smart Irrigation Market Outlook, By Hybrid Systems (2023–2034)
(\$MN)

Table 25 Global Smart Irrigation Market Outlook, By Technology (2023–2034) (\$MN)

Table 26 Global Smart Irrigation Market Outlook, By IoT-Based Irrigation Systems
(2023–2034) (\$MN)

Table 27 Global Smart Irrigation Market Outlook, By AI-Enabled Irrigation Systems
(2023–2034) (\$MN)

Table 28 Global Smart Irrigation Market Outlook, By Cloud-Based Irrigation Systems
(2023–2034) (\$MN)

Table 29 Global Smart Irrigation Market Outlook, By Remote Monitoring Systems
(2023–2034) (\$MN)

Table 30 Global Smart Irrigation Market Outlook, By Machine Learning-Based Irrigation
(2023–2034) (\$MN)

Table 31 Global Smart Irrigation Market Outlook, By Application (2023–2034) (\$MN)

Table 32 Global Smart Irrigation Market Outlook, By Agricultural Irrigation (2023–2034)
(\$MN)

Table 33 Global Smart Irrigation Market Outlook, By Open Field Farming (2023–2034)
(\$MN)

Table 34 Global Smart Irrigation Market Outlook, By Greenhouse Irrigation (2023–2034)
(\$MN)

Table 35 Global Smart Irrigation Market Outlook, By Precision Farming (2023–2034)
(\$MN)

Table 36 Global Smart Irrigation Market Outlook, By Non-Agricultural Irrigation
(2023–2034) (\$MN)

Table 37 Global Smart Irrigation Market Outlook, By Residential Landscaping
(2023–2034) (\$MN)

Table 38 Global Smart Irrigation Market Outlook, By Commercial Landscaping
(2023–2034) (\$MN)

Table 39 Global Smart Irrigation Market Outlook, By Turf & Gardens (2023–2034)
(\$MN)

Table 40 Global Smart Irrigation Market Outlook, By Sports Fields (2023–2034) (\$MN)

Table 41 Global Smart Irrigation Market Outlook, By Golf Courses (2023–2034) (\$MN)

Table 42 Global Smart Irrigation Market Outlook, By End User (2023–2034) (\$MN)

Table 43 Global Smart Irrigation Market Outlook, By Agriculture Sector (2023–2034)
(\$MN)

Table 44 Global Smart Irrigation Market Outlook, By Residential Users (2023–2034)

(\$MN)

Table 45 Global Smart Irrigation Market Outlook, By Commercial Facilities (2023–2034)

(\$MN)

Table 46 Global Smart Irrigation Market Outlook, By Municipal Authorities (2023–2034)

(\$MN)

Table 47 Global Smart Irrigation Market Outlook, By Sports Infrastructure (2023–2034)

(\$MN)

Table 48 Global Smart Irrigation Market Outlook, By Industrial Landscapes (2023–2034)

(\$MN)

Table 49 Global Smart Irrigation Market Outlook, By Distribution Channel (2023–2034)

(\$MN)

Table 50 Global Smart Irrigation Market Outlook, By Direct Sales (2023–2034) (\$MN)

Table 51 Global Smart Irrigation Market Outlook, By Distributors & Dealers (2023–2034)

(\$MN)

Table 52 Global Smart Irrigation Market Outlook, By Online Sales (2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

I would like to order

Product name: Smart Irrigation Market Forecasts to 2034 – Global Analysis By Component (Controllers, Sensors, Water Flow Meters; Connectivity & Communication Modules, and Software Platforms), System Type (Weather-Based Systems, and Sensor-Based Systems), Irrigation Type, Deployment Mode, Technology, Application, End User, Distribution Channel, and By Geography

Product link: <https://marketpublishers.com/r/S193FCFAB5DEEN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/S193FCFAB5DEEN.html>