

Private Sector Efforts to Manage Water Resources in Face of Climate Change

A Coca-Cola Case Study



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Shaping Climate Ambassadors

EXPERT

Understands key
opportunity areas

LEADER

Effectively
communicates
2020 value-chain
climate goals

CHANGE- AGENT

Engages
suppliers

INNOVATOR

Defines a strong
business case for
action

VALUE- CREATOR

Creates business
and sustainability
value



Vision 2020: Climate Change Proofing Targets

INNOVATOR



Water Efficiency

- Reduce Specific Water usage by 25% by 2020 from 2010 base line



Water Replenishment

- Achieve 100% water replenishment level by 2020



Sustainable Sourcing

- Source agriculture ingredients only from sustainable sources by 2020



Embracing Climate Change

As a hydration Company, having safe and clean water is not just a business priority but good for communities that surround us as well



Water Risk Assessment

- Macro Understanding



Source Water Protection

- Micro Understanding



Water Replenishment Initiatives

- Proofing

Anchored in Vision 2020 our Mission drives our Sustainability Agenda

LEADER

Chairman and CEO
Muhtar Kent
personally drives
sustainability across
the global Coca-Cola
System

Chief Sustainability
Officer leads the
charge, reports
directly to the
Chairman

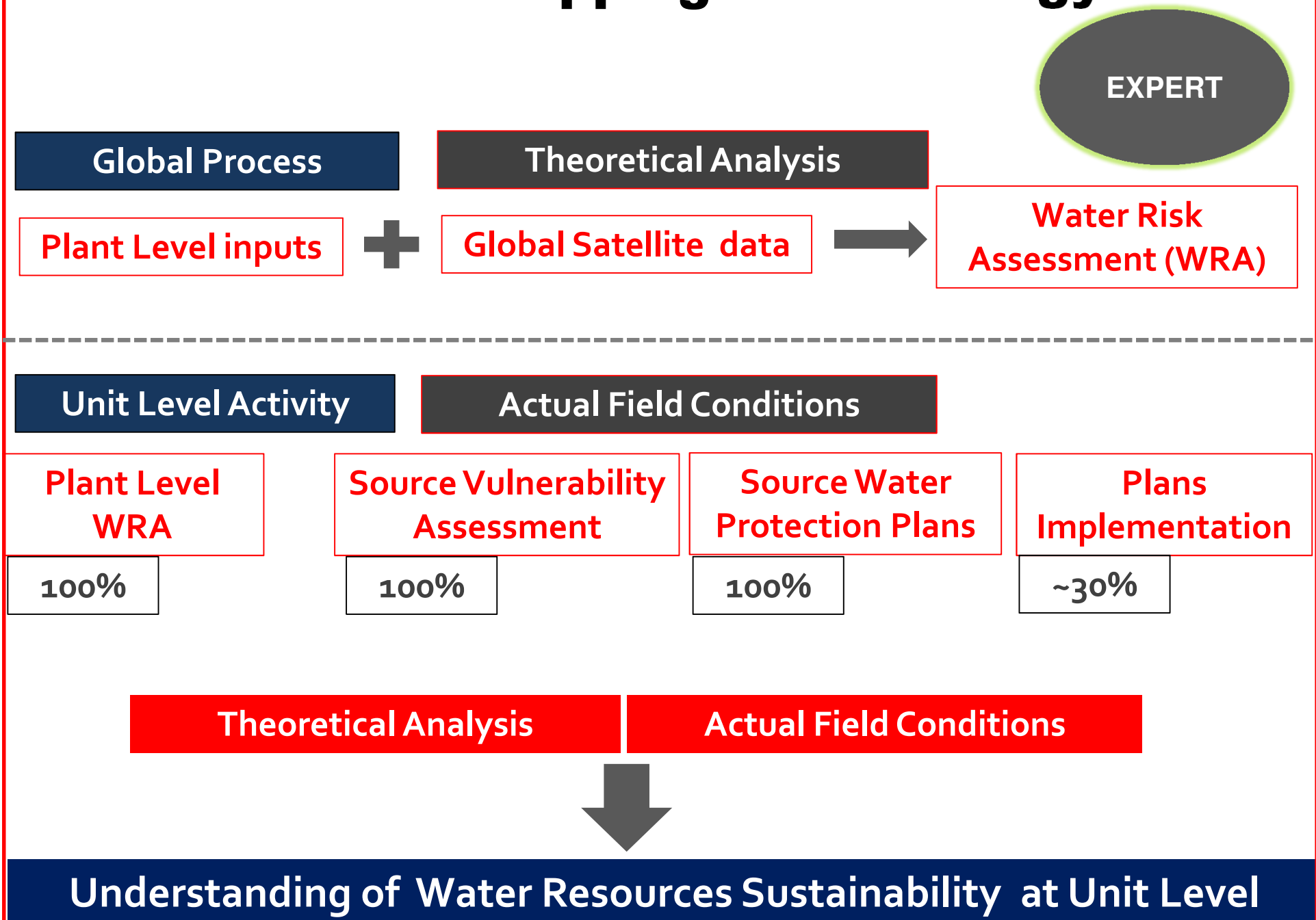


Leadership Priorities



ME-WE –WORLD Framework

Water Resource Mapping: Methodology



Water Risk Assessment at Unit Level: Parameters

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Water Resources Sustainability

- Surface/Groundwater Stress
- Watershed Quality
- Social Impacts
- Effective Resource Mgt

Supply Reliability

- Legal Access to Water
- Policy/Politics
- Infrastructure
- Natural Disasters

Wastewater Compliance

- Local/Legal Standards
- Operations
- Reuse

Supply Economics

- Water Supply Costs
- Water Treatment Costs
- Policy

Water Efficiency

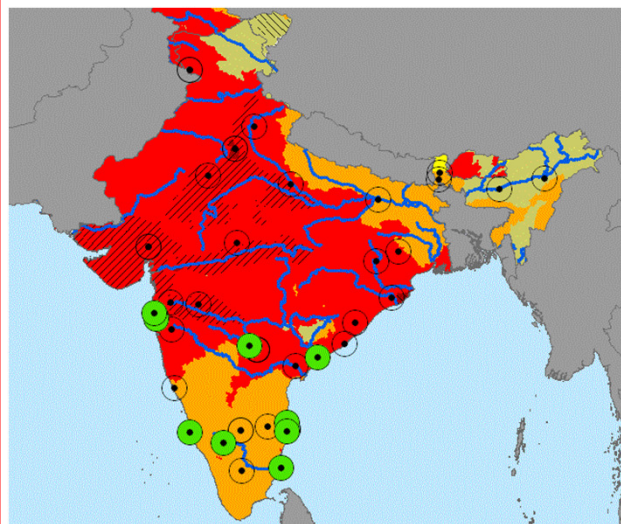
- Plant Water Efficiency
- Product/Package Mix Change
- Policy
- Technology Changes

Local Social

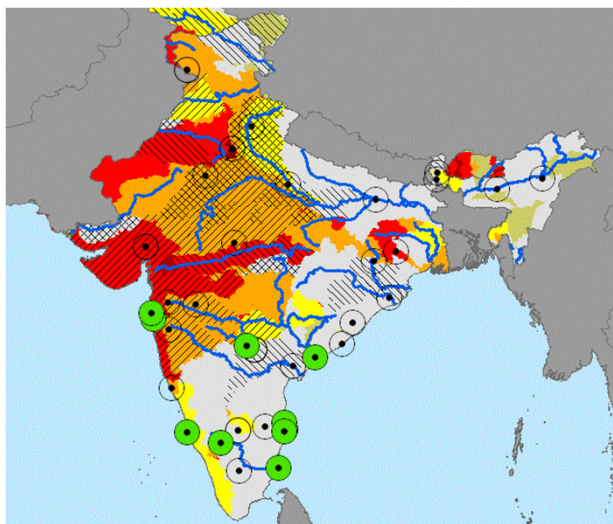
- Community
- Government
- Media
- NGOs
- Business Community

Data Analysis and Long-Term Change in Water Stress Map

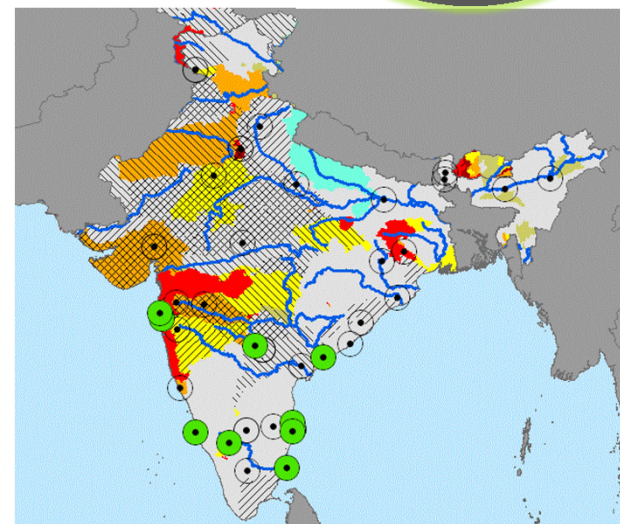
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2025



2050



2095

Data

- **Used satellite data** to cover 60 sq. km around each operational plant

Analysis

- Estimates Overall water scarcity around each plant based on **water stress and drought severity**

Response

- **Long-term change** in water stress predictions are made with the help of climate change models

Identify Issues – Form a Management Plan

Recharge Pond at Khurda, Orissa



Check Dam at Sakri, HP



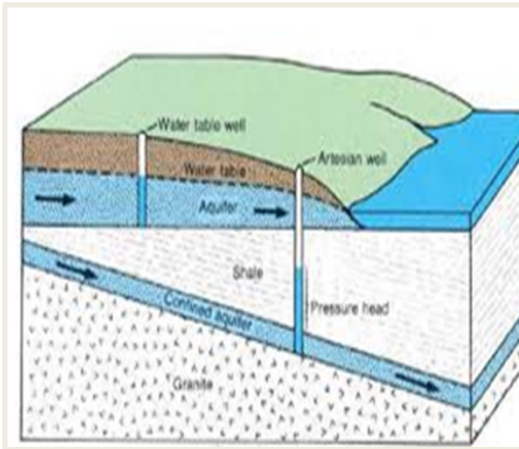
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- **Watershed level exercise** – Source Vulnerability Assessment (SVA)
 - 100% SVA studies completed by exit 2012
- **Identified vulnerabilities are classified as:**
 - ✓ Quantity related
 - ✓ Quality related
 - ✓ Legal aspects
 - ✓ Community/Social aspects
- **Outcome of SVA study** - Development of unit specific Source Water Protection plans

Common Projects Emanated from SWPP

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Ground Water based Plants



- Monitoring of Ground Water Levels
- Monitoring of Ground Water Quality
- Periodic aquifer testing

Surface Water based Plants



- Sustainable engagement with water agencies
- Periodic well/pipe line maintenance and record keeping

Community Level:



Engaging with community and developing structured programs

Water Stewardship is part of our long term sustainability strategy

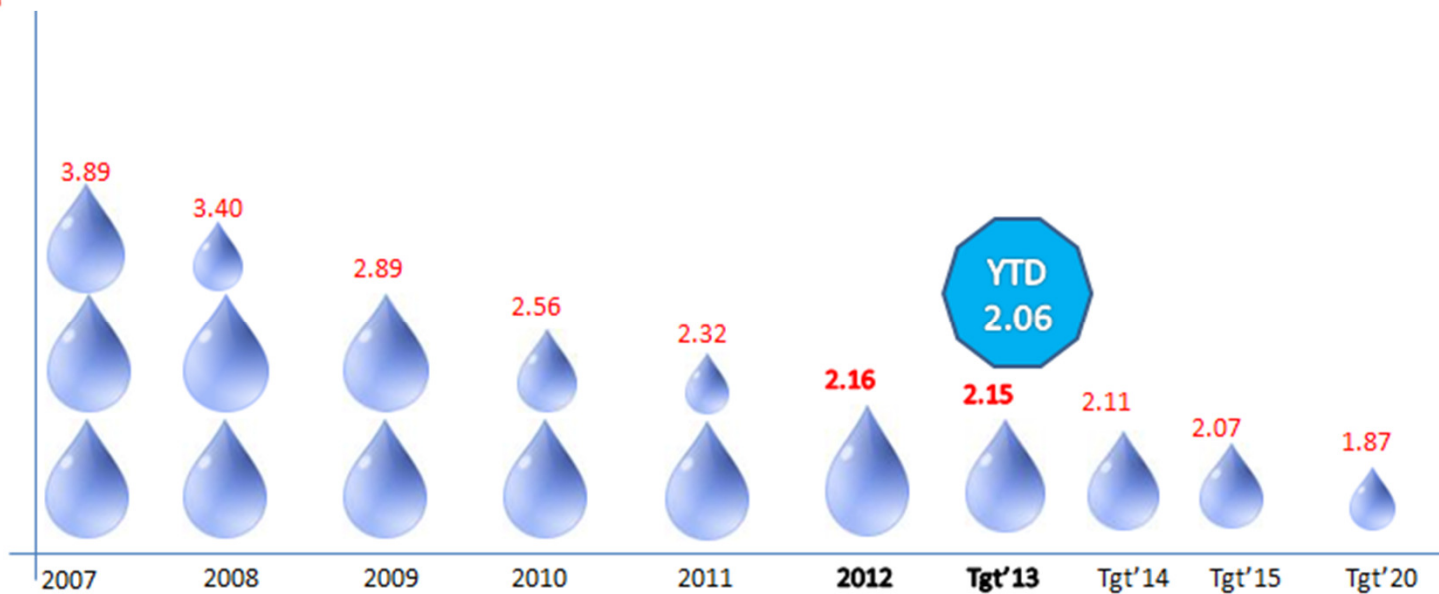
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TCCC has pledged to balance an amount of water equal to what we use in all of our products and their production by 2020.



WATER
STEWARDSHIP

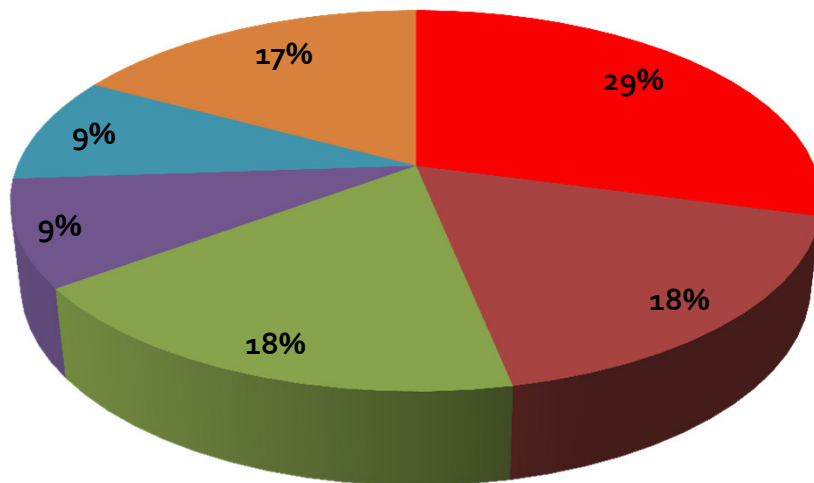


Coca-Cola Interventions and Programs

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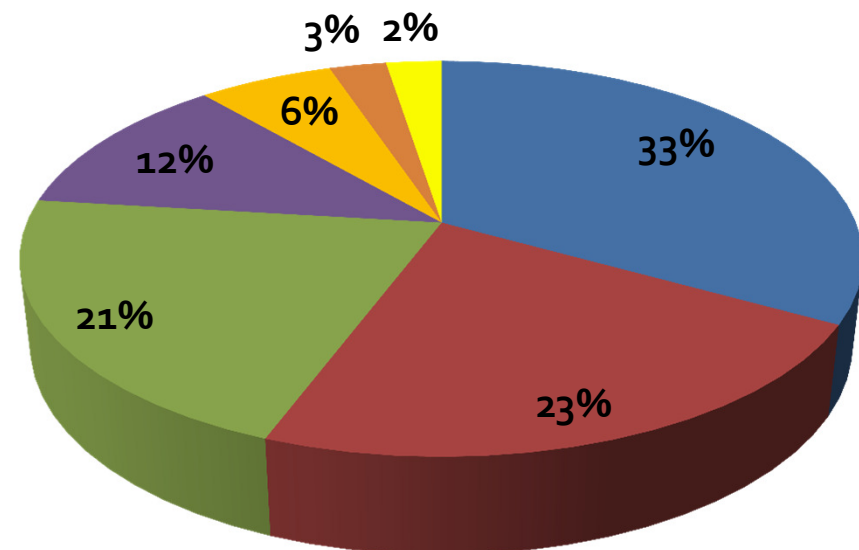
Interventions for WUR Reduction

- Back Wash Recovery
- De Causticiser (BW recovery)
- CIP rinse reuse
- Extended runs
- Bottle washer water optimisation
- Others



Water Replenishment -Key Contributors

- Laser Leveling
- Roof Water Harvesting
- Recharge Ponds
- Recharge Shafts
- Check dams
- Drip Irrigation
- Protected Water Supply



Examples of Interventions

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AGENT



**Roof Water Recharge at
Jaipur Unit**



**Recharge pond at Khurda,
Orissa**



**Check Dam at Sikri,
Himachal Pradesh**



Laser Leveling at Amritsar, Punjab

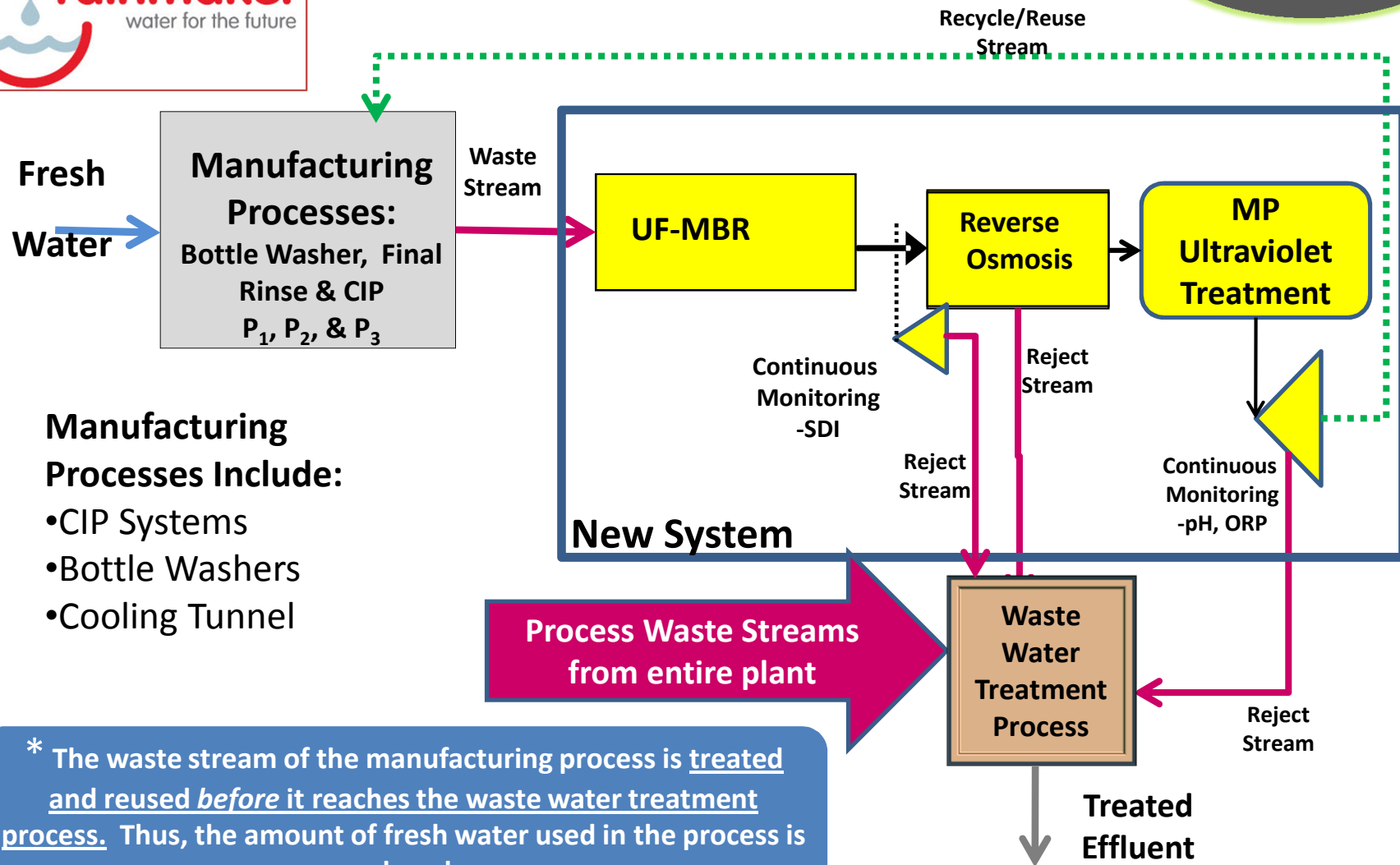


Drip Irrigation

Rain maker: Re-use and recycle water in our manufacturing plants



INNOVATOR



* The waste stream of the manufacturing process is treated and reused before it reaches the waste water treatment process. Thus, the amount of fresh water used in the process is reduced.

Benefits of rainmaker



INNOVATOR

With Rainmaker we are **doubling capacity by 2014**

	Current Status (year 2010)	2014 Without Rainmaker	2014 With Rainmaker
Production Volume	865 m ³ /day	1967 m ³ /day	1967 m ³ /day
Water Usage	1650 - 1750 m ³	3150- 3250m ³	2825 – 2875 m ³
Industrial Waste ** Generated, m ³ /day	550 - 650 m ³ /day	946 - 1046 m ³ /day	525 -585 m ³ /day
Industrial Waste Water Permit	700 m ³ /day	600 m ³ /day	600 m ³ /day
WUR	2.0 *	1.6 -1.65	1.4 -1.45
Land Required to Purchase	N/A	18 acres	--

We are not doing It Alone ...Golden Triangle Approach

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The coming together of Government, Business and Civil society to solve the world's most pressing issues.



Partnership with UN HABITAT

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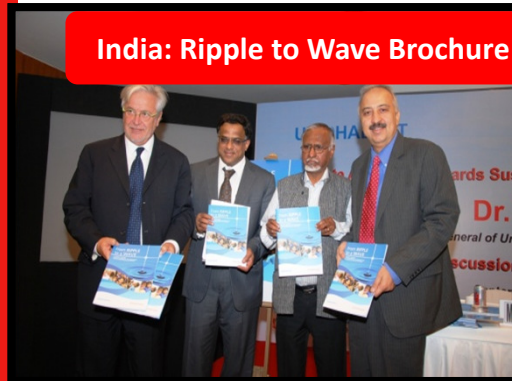
Water replenishment and
rejuvenation initiatives with
UN HABITAT

10 Countries

Rainwater harvesting projects,
rejuvenated traditional water
bodies and restored ponds and
lakes

Training for students and
community members

India: Ripple to Wave Brochure



World Water Week



Special Event at the WUF-6, Naples,



We believe that a sustainable business thrives only amidst sustainable communities

VALUE-
CREATOR



The most essential 'shared norm for the new reality' is the critical need for business, government and civil society – what I call the 'golden triangle' -- to come together to solve the world's most pressing challenges

Muhtar Kent

Chairman and CEO

The Coca-Cola Company

Shaping Climate Ambassadors

Working along our value chain we need to partner outside of our sphere of control, working alongside our suppliers, distributors, and partners to jointly tackle the challenges and opportunities of reducing climate impact.

EXPERT

Understands key opportunity areas

LEADER

Effectively communicates 2020 value-chain climate goals

CHANGE-AGENT

Engages suppliers

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Defines a strong business case for action



VALUE-CREATOR

Creates business and sustainability value

Together we will help transform the company into a leader in carbon performance, creating more value for customers, our shareholders, our communities, our employees, our suppliers, and our bottom line.