



Opportunities from innovation

Moving the dial on climate-water challenges

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What's the problem?



CLIMATE CHANGE

Climate change increases the frequency of severe weather events from droughts, extreme rainfall and flooding.



Water risks are rapidly materializing for business

- ▼ US\$14 billion in water-related impacts, a five-fold increase from last year
- ▼ Over a quarter of companies experienced detrimental impacts from water
- ▼ Companies expect over half (54%) of the 4,416 water risks they identified to materialize within the next six years.



Water can make or break the low carbon transition

- ▼ Delivering on the Paris agreement creates more demand and pressure to improve water management
- ▼ 24% of emissions reduction activities reported to CDP depend on a stable supply of good quality water
- ▼ 53% of companies report GHG reductions as a direct result of improvements to water management

We must connect the dots between climate change, water scarcity and energy shortages. Solutions to one problem must be solutions for all.

Ban Ki-moon

Secretary-General of the UN

Benefits vs Trade offs

▼ **ConAgra** found that “single pass cooling” was more energy efficient than recirculated water cooling systems

▼ Reduced more than 80% of total water use by recirculating water in new condensers

▼ While this supported their goal to reduce water use by 20% by 2020 it did require additional electricity

▼ **Xylem** upgraded the oxidation system at one plant using Xylem’s new Sanitaire Silver Series and Flygt mixer

▼ Previously, each oxidation system required 100 horsepower; the plant was able to reduce energy load by 43%

▼ This has led to a saving of more than \$36,000 per year at the plant

Our vision is to achieve a secure and sustainable water supply by 2030



WATER GOVERNANCE

How will we achieve a water-secure world?

Cities and companies will need to substantially increase water recycling and safe reuse by 2030.

They will need to change the way they operate to ensure water security.



VISION

Nestle – Manos al Agua

- ▼ Dependent on Columbian suppliers for raw materials
- ▼ Region experiences both shortages and excesses of water, with 23% of the population facing problems of access in the dry years
- ▼ Water imbalance has reduced harvest productivity by 40%

- ▼ Training on the economic management of farms has been given to hundreds of participating coffee producers
- ▼ 10 pioneering water-reuse systems have been constructed
- ▼ 160 sites selected for reforestation/agroforestry projects; 15 sites prone to landslides selected for bioengineering restoration projects
- ▼ 27 local [Manos al Agua](#) community participation groups set up, implementing actions in 25 river basins

General Motors

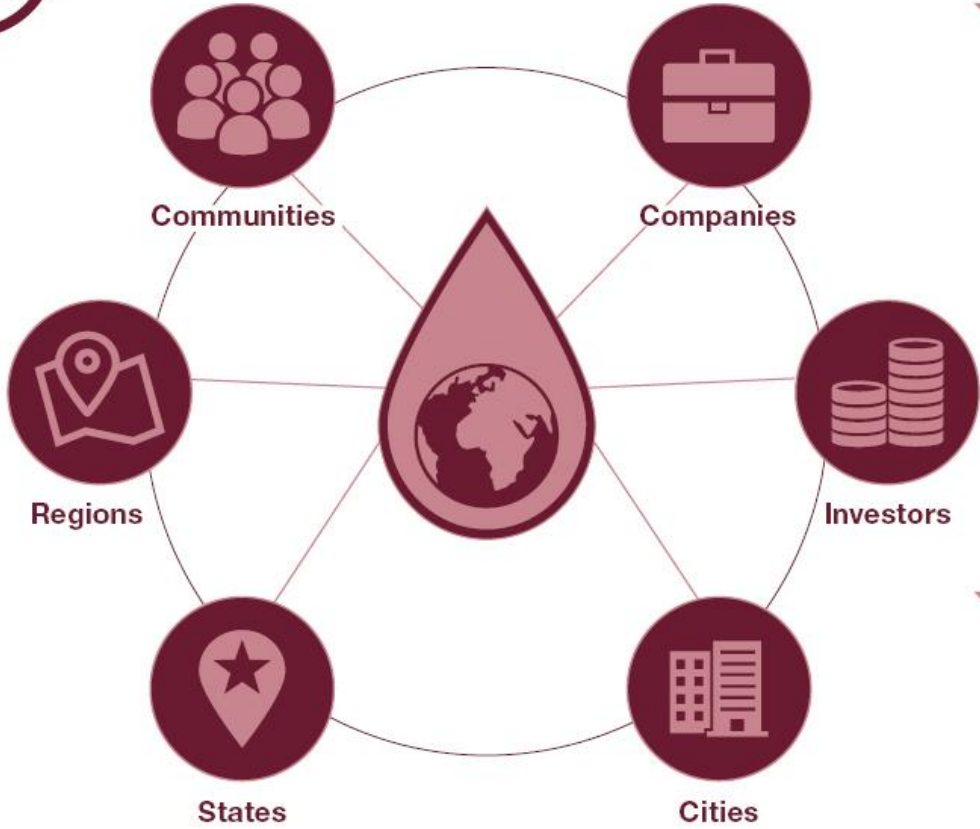
- ▼ US\$2million annual fee was levied by the city of Detroit for treatment in its combined sewer system. This fee equated to 14% of the plant's entire utility bill
- ▼ GM goal - By 2020 to reduce water intensity by 15% from 2010 baseline levels
- ▼ Result: cut water-use by 20% through rainwater harvesting and saved US\$140,000 annually



Successful water governance means working together



THE WAY FORWARD



234
COMPANIES HAVE REPORTED THAT THEY WORK WITH KEY STAKEHOLDERS AS A RESPONSE STRATEGY TO WATER RISKS

353
CITIES CURRENTLY COLLABORATE WITH BUSINESSES ON WATER AND CLIMATE CHANGE ISSUES.

COLLABORATION