



SUSTAINABLE DEVELOPMENT, FOCUSED ON ENSURING ACCESS TO CLEAN WATER AND SANITATION

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WHAT IS SUSTAINABLE DEVELOPMENT GOAL 6?

- SUSTAINABLE DEVELOPMENT GOAL 6 (SDG 6) IS PART OF THE UNITED NATIONS' 2030 AGENDA, WHICH HAS 17 GLOBAL GOALS. SDG 6 FOCUSES ON ENSURING ACCESS TO CLEAN WATER AND SANITATION FOR EVERYONE BY THE YEAR 2030. ACCESS TO SAFE WATER AND PROPER SANITATION IS ESSENTIAL FOR HEALTHY LIVES, BETTER EDUCATION, AND SUSTAINABLE DEVELOPMENT.



WHY IS IT IMPORTANT?

- **HEALTH:** CLEAN WATER AND GOOD SANITATION PREVENT MANY DISEASES. WHEN PEOPLE DON'T HAVE ACCESS TO SAFE WATER, THEY ARE AT RISK OF ILLNESSES LIKE DIARRHEA AND CHOLERA, WHICH CAN BE DEADLY, ESPECIALLY FOR CHILDREN.
- **ENVIRONMENT:** PROPER WATER MANAGEMENT PROTECTS RIVERS, LAKES, AND UNDERGROUND WATER SOURCES. POLLUTION AND OVERUSE CAN DESTROY THESE VITAL ECOSYSTEMS.
- **EQUALITY:** MANY PEOPLE, ESPECIALLY IN POOR AND RURAL AREAS, STILL DON'T HAVE ACCESS TO SAFE WATER. WOMEN AND CHILDREN OFTEN HAVE TO TRAVEL LONG DISTANCES TO COLLECT WATER, WHICH TAKES TIME AWAY FROM SCHOOL AND WORK.



CURRENT CHALLENGES AND GOAL FOR 2030

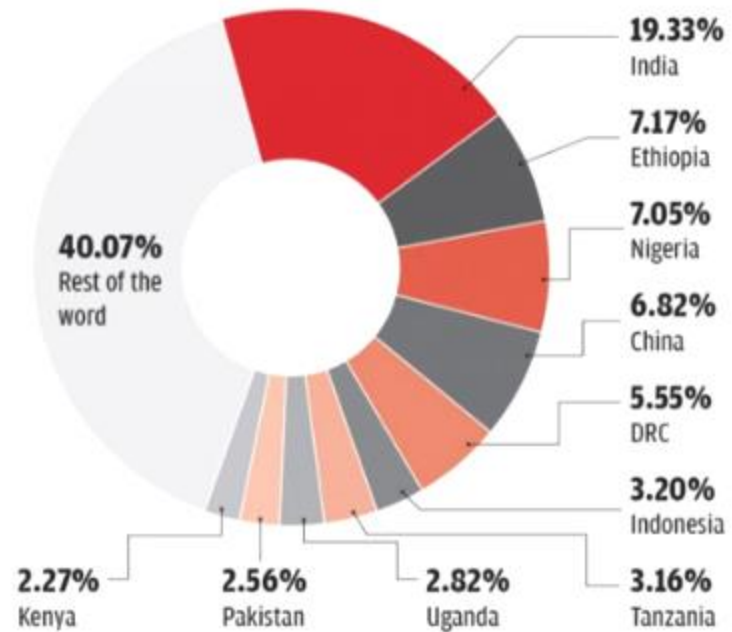
- TODAY, OVER 2 BILLION PEOPLE LIVE IN AREAS WITH LIMITED ACCESS TO CLEAN WATER. THIS LACK OF WATER HAS MANY NEGATIVE EFFECTS ON HEALTH, FOOD SECURITY, AND ECONOMIC GROWTH. ACHIEVING SDG 6 REQUIRES ACTION FROM GOVERNMENTS, COMMUNITIES, AND INDIVIDUALS TO IMPROVE WATER ACCESS AND SANITATION SYSTEMS WORLDWIDE.
- THE MAIN GOAL OF SDG 6 IS TO ENSURE THAT EVERYONE CAN ACCESS CLEAN, AFFORDABLE WATER AND BASIC SANITATION FACILITIES BY 2030. TO ACHIEVE THIS, WE NEED TO PROTECT WATER ECOSYSTEMS, INVEST IN INFRASTRUCTURE, AND SUPPORT LOCAL AND INTERNATIONAL PARTNERSHIPS.



CURRENT SITUATION OF WATER ACCESS AND SANITATION

Waterless countries

Just 10 countries account for 60% of the world population without access to clean water



Source: The water gap—The State of the World's Water 2018 report by WaterAid

WATER ACCESS TODAY

- OVER **2 BILLION PEOPLE** LIVE IN AREAS WHERE CLEAN DRINKING WATER IS LIMITED.
- **3 IN 10 PEOPLE** WORLDWIDE STILL LACK SAFE DRINKING WATER.

SANITATION CHALLENGES

- **6 IN 10 PEOPLE** DO NOT HAVE ACCESS TO SAFE SANITATION FACILITIES LIKE TOILETS.
- IN SOME AREAS, PEOPLE STILL PRACTICE **OPEN DEFECATION** DUE TO LACK OF PROPER FACILITIES.

IMPACT ON HEALTH AND EDUCATION

- UNSAFE WATER AND POOR SANITATION LEAD TO DISEASES LIKE DIARRHEA, WHICH ARE ESPECIALLY DANGEROUS FOR CHILDREN.
- WOMEN AND GIRLS OFTEN COLLECT WATER, LOSING TIME FOR SCHOOL AND WORK.

CHALLENGES – WATER SCARCITY AND ITS EFFECTS

WATER SCARCITY

- WATER SCARCITY MEANS THERE IS NOT ENOUGH CLEAN WATER FOR EVERYONE'S NEEDS.
- TODAY, AROUND **40% OF THE WORLD'S POPULATION** EXPERIENCES WATER SCARCITY.
- BY **2050**, ONE IN FOUR PEOPLE COULD LIVE IN A COUNTRY WITH A CHRONIC LACK OF WATER.

CAUSES OF WATER SCARCITY

- **CLIMATE CHANGE:** DROUGHTS AND CHANGING WEATHER PATTERNS REDUCE WATER AVAILABILITY IN MANY AREAS.
- **POLLUTION:** FACTORIES, AGRICULTURE, AND HUMAN WASTE POLLUTE RIVERS AND LAKES, MAKING WATER UNSAFE.
- **GROWING POPULATION:** MORE PEOPLE NEED MORE WATER FOR DRINKING, FARMING, AND INDUSTRY, LEADING TO GREATER DEMAND.

EFFECTS OF WATER SCARCITY

- **HEALTH PROBLEMS:** LACK OF CLEAN WATER LEADS TO DISEASES AND MALNUTRITION.
- **FOOD SHORTAGES:** WITHOUT ENOUGH WATER, CROPS FAIL, WHICH CAUSES HUNGER AND INCREASES FOOD PRICES.
- **ECONOMIC STRAIN:** WATER SCARCITY AFFECTS AGRICULTURE AND INDUSTRY, MAKING IT HARDER FOR COMMUNITIES TO GROW ECONOMICALLY.

IMPACT ON POOR COMMUNITIES

- WATER SCARCITY AFFECTS THE POOREST REGIONS MOST SEVERELY. THESE AREAS OFTEN LACK INFRASTRUCTURE AND RESOURCES TO DEAL WITH THE PROBLEM.



EFFECTS OF LACK OF ACCESS TO CLEAN WATER

HEALTH RISKS

- **WATERBORNE DISEASES:** CONTAMINATED WATER CAUSES DISEASES LIKE DIARRHEA, CHOLERA, AND DYSENTERY, WHICH CAN BE DEADLY, ESPECIALLY FOR CHILDREN.
- **CHILD MORTALITY:** EVERY DAY, AROUND **1,000 CHILDREN** DIE FROM PREVENTABLE DISEASES RELATED TO POOR WATER, SANITATION, AND HYGIENE.

IMPACT ON EDUCATION

- **MISSED SCHOOL DAYS:** CHILDREN, ESPECIALLY GIRLS, OFTEN MISS SCHOOL BECAUSE THEY SPEND HOURS COLLECTING WATER.
- **SANITATION CHALLENGES IN SCHOOLS:** SCHOOLS WITHOUT TOILETS OR CLEAN WATER STRUGGLE TO PROVIDE A SAFE AND HEALTHY LEARNING ENVIRONMENT, WHICH LEADS TO ABSENTEEISM.

IMPACT ON WOMEN AND GIRLS

- **TIME AND SAFETY:** WOMEN AND GIRLS ARE OFTEN RESPONSIBLE FOR COLLECTING WATER, WHICH TAKES TIME FROM EDUCATION OR WORK AND CAN PUT THEM AT RISK OF VIOLENCE.
- **HEALTH ISSUES:** CARRYING HEAVY WATER CONTAINERS CAN LEAD TO PHYSICAL HEALTH PROBLEMS OVER TIME.

ECONOMIC CONSEQUENCES

- **LOST PRODUCTIVITY:** TIME SPENT COLLECTING WATER OR DEALING WITH HEALTH ISSUES LIMITS WORK AND ECONOMIC PRODUCTIVITY.
- **INCREASED POVERTY:** MEDICAL EXPENSES AND LOSS OF INCOME DUE TO POOR HEALTH DEEPEN POVERTY IN AFFECTED COMMUNITIES.

TARGETS FOR SUSTAINABLE DEVELOPMENT GOAL 6 BY 2030

TARGET 6.1: UNIVERSAL ACCESS TO SAFE DRINKING WATER

- ENSURE EVERYONE HAS ACCESS TO **AFFORDABLE** AND **SAFE DRINKING WATER** BY 2030. THIS TARGET AIMS TO MAKE CLEAN WATER AVAILABLE AND ACCESSIBLE FOR ALL PEOPLE, ESPECIALLY IN RURAL AND UNDERSERVED AREAS.

TARGET 6.2: ACCESS TO SANITATION AND HYGIENE

- PROVIDE **ADEQUATE AND SAFE SANITATION** AND HYGIENE FOR EVERYONE, FOCUSING ON WOMEN, GIRLS, AND VULNERABLE POPULATIONS. THE GOAL INCLUDES ELIMINATING OPEN DEFECATION TO IMPROVE HEALTH AND SAFETY.

TARGET 6.3: IMPROVE WATER QUALITY

- BY REDUCING POLLUTION, MINIMIZING DUMPING, AND MANAGING HARMFUL CHEMICALS, THIS TARGET AIMS TO **IMPROVE WATER QUALITY**. IT ALSO PROMOTES **RECYCLING** AND SAFE REUSE OF WASTEWATER.

TARGET 6.4: INCREASE WATER-USE EFFICIENCY

- **USE WATER MORE EFFICIENTLY** ACROSS SECTORS, INCLUDING AGRICULTURE, INDUSTRY, AND HOUSEHOLDS. THIS WILL HELP ADDRESS WATER SCARCITY AND REDUCE THE NUMBER OF PEOPLE AFFECTED BY WATER SHORTAGES.



TARGET 6.5: IMPLEMENT INTEGRATED WATER RESOURCES MANAGEMENT

- **MANAGE WATER RESOURCES IN A SUSTAINABLE AND COORDINATED WAY** AT ALL LEVELS, INCLUDING INTERNATIONAL COOPERATION FOR REGIONS THAT SHARE WATER SOURCES.

TARGET 6.6: PROTECT AND RESTORE WATER-RELATED ECOSYSTEMS

- **PROTECT RIVERS, LAKES, FORESTS, AND WETLANDS** THAT SUPPORT FRESH WATER SOURCES AND BIODIVERSITY. THIS INCLUDES **RESTORING ECOSYSTEMS** AFFECTED BY HUMAN ACTIVITY TO SECURE CLEAN WATER.

SUPPORTING TARGETS 6.A AND 6.B

- **EXPAND INTERNATIONAL COOPERATION** AND SUPPORT FOR DEVELOPING COUNTRIES TO IMPROVE WATER AND SANITATION TECHNOLOGIES.
 - **ENGAGE LOCAL COMMUNITIES** IN WATER MANAGEMENT DECISIONS TO ENSURE SUSTAINABLE AND EFFECTIVE SOLUTIONS.
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INTEGRATED WATER RESOURCES MANAGEMENT (IWRM)

WHAT IS IWRM?

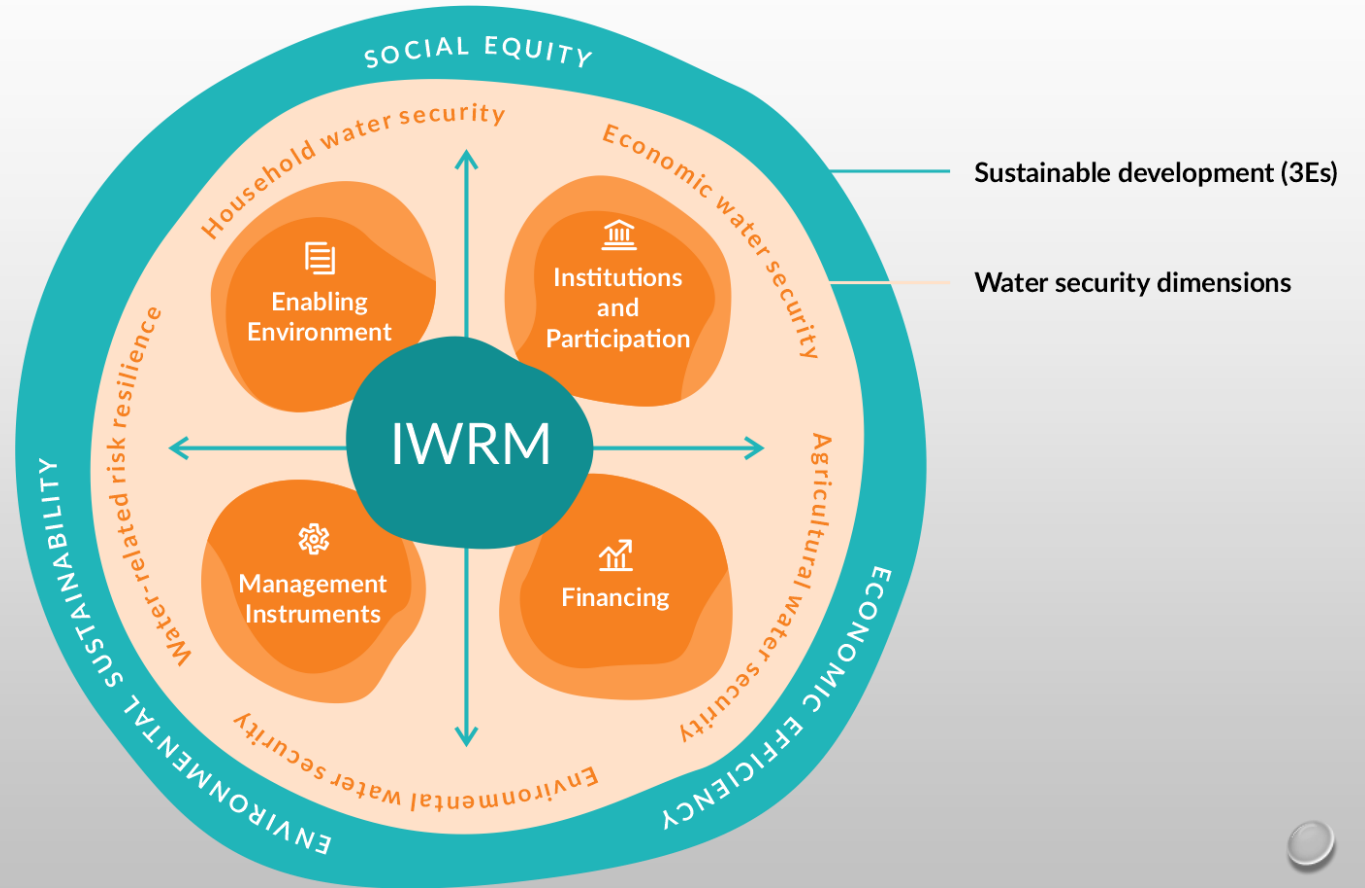
- IWRM IS A PROCESS FOR **SUSTAINABLE WATER MANAGEMENT**, BALANCING ENVIRONMENTAL, SOCIAL, AND ECONOMIC NEEDS.

KEY PRINCIPLES

- **SHARED RESOURCE:** MANAGE WATER AS A SHARED RESOURCE FOR ALL SECTORS.
- **INCLUSIVE PARTICIPATION:** INVOLVE COMMUNITIES, GOVERNMENTS, AND INDUSTRIES.
- **SUSTAINABILITY:** MEET CURRENT NEEDS WITHOUT HARMING FUTURE GENERATIONS.
- **SECTOR COORDINATION:** COORDINATE WATER USE ACROSS AGRICULTURE, INDUSTRY, AND URBAN AREAS.

BENEFITS OF IWRM

- **IMPROVED ACCESS:** BETTER WATER ACCESS AND SANITATION.
- **ENHANCED QUALITY:** CLEANER WATER FOR ALL.
- **CLIMATE RESILIENCE:** ADAPT TO DROUGHTS AND FLOODS.
- **ECONOMIC EFFICIENCY:** OPTIMIZED WATER USE, SAVING COSTS.



KEY WATER PROBLEMS

1 Access to water supply and sanitation



In 2020, 1 in 4 people lacked safely managed drinking water and about 3.6 billion did not have access to safely managed sanitation services (JMP, 2021).

2 Water-related disasters



Between 2000 and 2019 at least 3 billion people were affected by extreme water-related events – approximately 1.65 billion by floods and 1.43 billion by droughts (World Bank, 2021).

3 Water stress



About 18% of the world's total renewable water resources is being withdrawn. In 2018, 37 countries registered a medium to critical level of water stress (UNEP, 2021).

Rapidly growing and urbanising populations

Growing demand for energy and industry

Increasing demand for irrigated crops

Climate change and environmental degradation

4 Water pollution



Approximately 80% of wastewater worldwide goes untreated, most of which is dumped directly into rivers and oceans (UNEP, 2021). In 2020, 28% of water bodies failed to achieve good ambient water quality status (UNEP, 2021).

5 Ecosystem degradation and biodiversity loss



Since the pre-industrial era, the world has seen an 80% loss of freshwater and coastal wetlands and a drop of about 5% in the area covered by mangrove ecosystems since 1996 (UNEP, 2021). Freshwater wildlife populations have dropped by over 80% since 1970 (Wetlands International, 2021).

CHALLENGES

- **INFRASTRUCTURE GAPS:** LACK OF NECESSARY FACILITIES.
- **COMPETING NEEDS:** CONFLICTING WATER DEMANDS FROM DIFFERENT SECTORS.
- **POLITICAL BARRIERS:** GOVERNANCE ISSUES CAN SLOW PROGRESS.

ACTIONS

- **STRENGTHEN GOVERNANCE:** IMPROVE WATER MANAGEMENT POLICIES.
- **PROMOTE EDUCATION:** RAISE AWARENESS ON WATER CONSERVATION.
- **INVEST IN TECHNOLOGY:** USE TECH TO MONITOR AND IMPROVE EFFICIENCY.

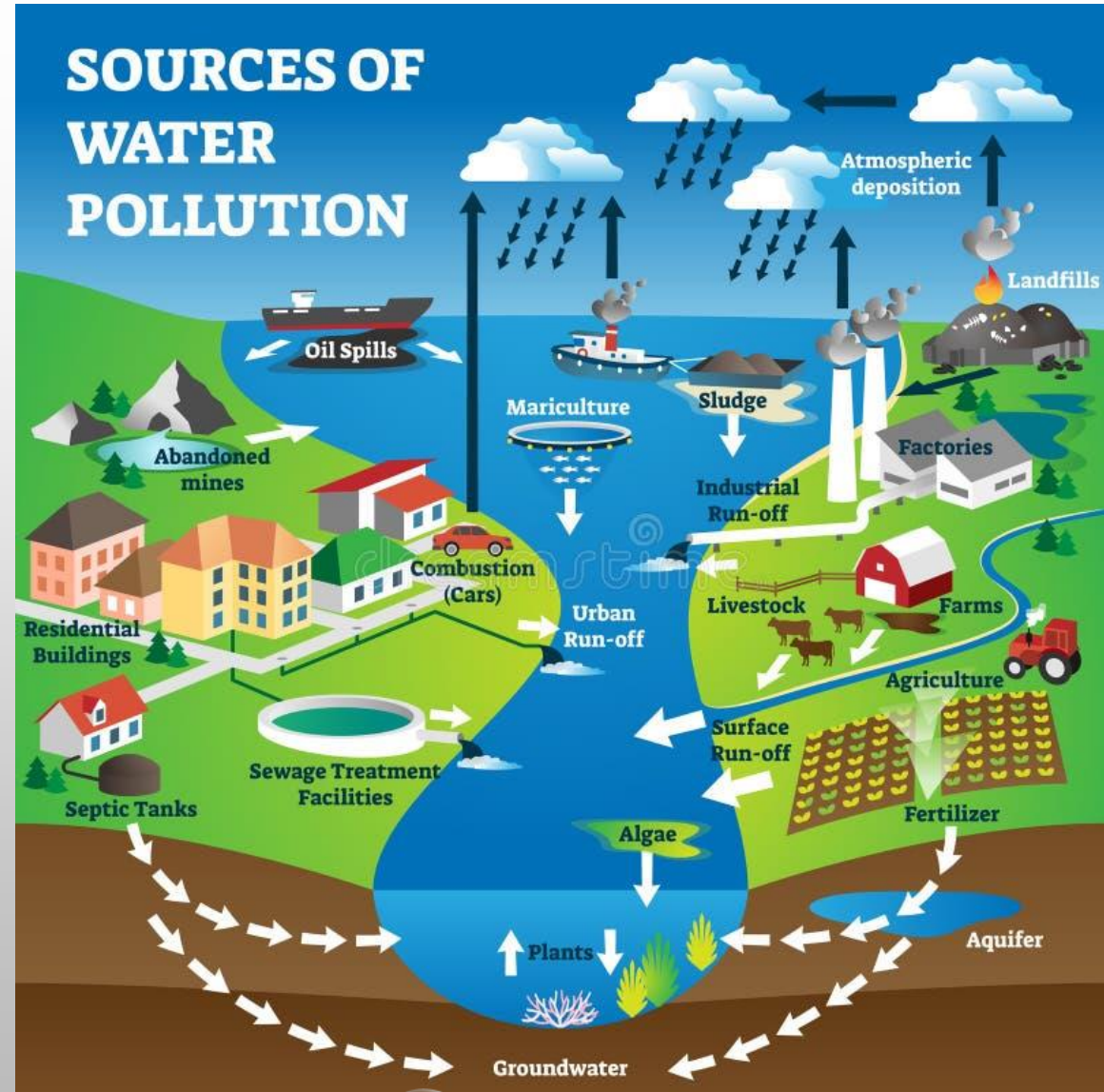
SUSTAINABLE USE AND PROTECTION OF WATER ECOSYSTEMS

WHAT ARE WATER ECOSYSTEMS?

- WATER ECOSYSTEMS INCLUDE **RIVERS, LAKES, WETLANDS, FORESTS, AND GROUNDWATER SOURCES.** THESE ENVIRONMENTS ARE ESSENTIAL FOR CLEAN WATER AND BIODIVERSITY.

IMPORTANCE OF PROTECTING WATER ECOSYSTEMS

- **NATURAL WATER FILTRATION:** WETLANDS AND FORESTS NATURALLY FILTER WATER, REMOVING POLLUTANTS AND MAINTAINING CLEAN WATER SUPPLIES.
- **FLOOD AND DROUGHT CONTROL:** HEALTHY ECOSYSTEMS HELP MANAGE WATER FLOWS, REDUCING THE IMPACTS OF FLOODS AND DROUGHTS.
- **BIODIVERSITY:** RIVERS, LAKES, AND WETLANDS ARE HOME TO DIVERSE PLANTS AND ANIMALS THAT DEPEND ON CLEAN WATER.



CURRENT THREATS TO WATER ECOSYSTEMS

- **POLLUTION:** INDUSTRIAL WASTE, AGRICULTURAL RUNOFF, AND UNTREATED SEWAGE POLLUTE RIVERS AND LAKES, HARMING WILDLIFE AND MAKING WATER UNSAFE.
- **DEFORESTATION:** CUTTING DOWN FORESTS NEAR WATER SOURCES LEADS TO SOIL EROSION AND DISRUPTS NATURAL WATER CYCLES.
- **OVERUSE OF WATER:** EXCESSIVE WATER WITHDRAWAL FOR AGRICULTURE AND INDUSTRY LOWERS WATER LEVELS IN RIVERS AND LAKES, HARMING ECOSYSTEMS.

ACTIONS FOR PROTECTING AND RESTORING WATER ECOSYSTEMS

- **REDUCE POLLUTION:** IMPLEMENTING STRICTER REGULATIONS TO LIMIT POLLUTANTS ENTERING WATER SOURCES.
- **REFORESTATION:** PLANTING TREES AROUND RIVERS AND LAKES TO PREVENT EROSION AND IMPROVE WATER QUALITY.
- **CONSERVATION AREAS:** CREATING PROTECTED AREAS AROUND IMPORTANT WATER ECOSYSTEMS TO PREVENT DAMAGE FROM HUMAN ACTIVITY.

LONG-TERM BENEFITS OF ECOSYSTEM PROTECTION

- PROTECTING WATER ECOSYSTEMS ENSURES A **SUSTAINABLE SUPPLY OF CLEAN WATER** FOR PEOPLE, AGRICULTURE, AND INDUSTRY.
- HEALTHY ECOSYSTEMS PROVIDE **CLIMATE RESILIENCE** BY MANAGING WATER FLOWS AND STORING CARBON, WHICH HELPS FIGHT CLIMATE CHANGE.

INTERNATIONAL COOPERATION FOR WATER AND SANITATION

WHY COOPERATE?

- **SHARED WATER RESOURCES:** MANY RIVERS CROSS BORDERS; COOPERATION ENSURES **FAIR AND SUSTAINABLE MANAGEMENT**.
- **GLOBAL ISSUES:** CLIMATE CHANGE, POLLUTION, AND SCARCITY AFFECT MULTIPLE COUNTRIES, REQUIRING JOINT SOLUTIONS.

KEY AREAS OF COOPERATION

- **TRANSBOUNDARY WATER MANAGEMENT:** COUNTRIES MUST WORK TOGETHER ON SHARED WATER SOURCES.
- **TECHNOLOGY AND KNOWLEDGE SHARING:** SHARING WATER TREATMENT AND EFFICIENCY TECHNOLOGIES WITH DEVELOPING COUNTRIES.
- **FUNDING:** INVESTING IN WATER INFRASTRUCTURE, ESPECIALLY IN DEVELOPING REGIONS.
- **DISASTER RESPONSE:** COORDINATED EFFORTS IN PROVIDING WATER AND SANITATION DURING WATER-RELATED DISASTERS.



EXAMPLES OF SUCCESS

- **US-CANADA:** THE INTERNATIONAL JOINT COMMISSION MANAGES SHARED RIVERS.
- **AFRICAN DEVELOPMENT BANK:** SUPPORTS WATER PROJECTS ACROSS AFRICA.

BENEFITS

- **PEACE:** JOINT MANAGEMENT REDUCES WATER CONFLICTS.
- **IMPROVED INFRASTRUCTURE:** BETTER WATER SYSTEMS GLOBALLY.
- **HEALTH:** IMPROVED ACCESS TO SAFE WATER REDUCES DISEASES.



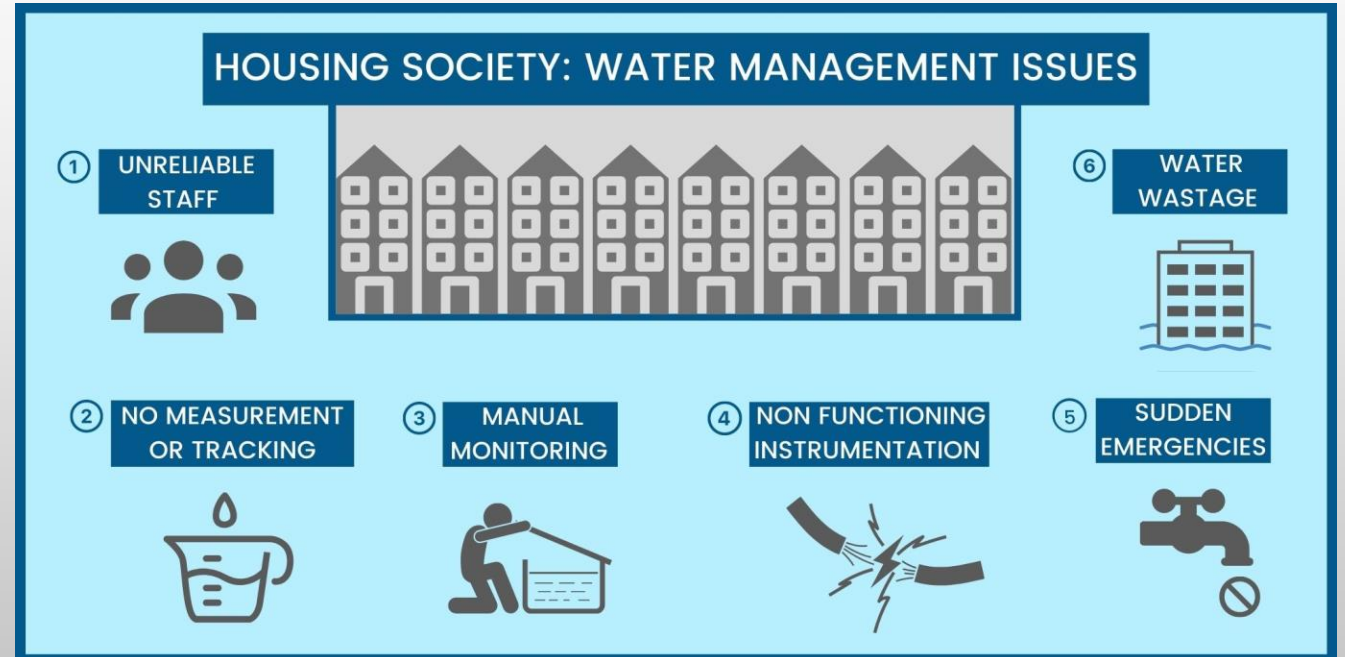
LOCAL COMMUNITY ENGAGEMENT IN WATER AND SANITATION MANAGEMENT

WHY IT'S IMPORTANT

- **LOCAL KNOWLEDGE:** COMMUNITIES UNDERSTAND THEIR WATER SOURCES AND CHALLENGES.
- **OWNERSHIP:** INVOLVEMENT ENSURES PEOPLE TAKE RESPONSIBILITY FOR MAINTAINING SYSTEMS.

BENEFITS

- **BETTER ACCESS:** PROJECTS MEET COMMUNITY NEEDS, IMPROVING WATER AND SANITATION ACCESS.
- **SUSTAINABLE SOLUTIONS:** LOCALS ARE MORE COMMITTED TO SUSTAINABLE PRACTICES.
- **EDUCATION:** COMMUNITIES EDUCATE EACH OTHER ON WATER CONSERVATION AND HYGIENE.





HOW TO ENGAGE COMMUNITIES

- **PARTICIPATORY PLANNING:** INVOLVE LOCALS IN DECISION-MAKING.
- **LOCAL MANAGEMENT:** TRAIN PEOPLE TO MANAGE WATER SYSTEMS.
- **WATER COMMITTEES:** CREATE LOCAL GROUPS TO OVERSEE WATER INFRASTRUCTURE.
- **AWARENESS CAMPAIGNS:** EDUCATE ON SANITATION AND WATER USE.

CHALLENGES

- **LACK OF RESOURCES:** LIMITED TRAINING OR TOOLS.
- **CULTURAL BARRIERS:** GENDER ROLES MAY RESTRICT PARTICIPATION.
- **POLITICAL ISSUES:** LOCAL GOVERNANCE MAY NOT PRIORITIZE COMMUNITY INVOLVEMENT.

EXAMPLES

- **INDIA:** LOCAL COMMITTEES MANAGE WELLS.
 - **KENYA:** COMMUNITY-BASED **WATER USER ASSOCIATIONS** IMPROVE ACCESS.
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SUMMARY

KEY POINTS

- **WATER AND SANITATION ARE ESSENTIAL:** ACCESS TO CLEAN WATER AND PROPER SANITATION IS A BASIC HUMAN RIGHT AND CRUCIAL FOR HEALTH, DEVELOPMENT, AND WELL-BEING.
- **CHALLENGES:** OVER 2 BILLION PEOPLE LACK SAFE DRINKING WATER, AND MANY MORE LACK ADEQUATE SANITATION, LEADING TO WIDESPREAD DISEASE AND POVERTY.
- **SUSTAINABLE SOLUTIONS:** EFFICIENT WATER MANAGEMENT, INNOVATIVE TECHNOLOGIES, AND INCREASED INVESTMENT ARE CRITICAL TO IMPROVING WATER ACCESS AND SANITATION.
- **GLOBAL AND LOCAL EFFORTS:** INTERNATIONAL COOPERATION AND LOCAL COMMUNITY INVOLVEMENT ARE KEY TO ENSURING EVERYONE HAS ACCESS TO CLEAN WATER AND SAFE SANITATION BY 2030.
- **THE PATH FORWARD:** THROUGH BETTER GOVERNANCE, EDUCATION, AND SUSTAINABLE PRACTICES, WE CAN ACHIEVE UNIVERSAL ACCESS AND PROTECT OUR WATER RESOURCES FOR FUTURE GENERATIONS.

CALL TO ACTION



Get Involved: Support local and global initiatives for water and sanitation.

Raise Awareness: Promote the importance of water conservation and hygiene practices.