INTER MUN 2024

UNITED NATIONS ENVIRONMENTAL PROGRAMME

BACKGROUND

"WATER DEFILEMENT AND ITS IMPACT ON SUBMARINE ECOSYSTEMS"

WELCOME

Greetings delegate,

Welcome to the United Nations Environmental Programme of the 2024 Jesuit School System's Model United Nations (INTERMUN) presented by Instituto Cultural Tampico 2024.

The UNEP's Committee Chair feels grateful to have the opportunity to work with delegates as valuable as you are. It is an honor to work with this team of diplomats to solve a problem as serious and concerning as the one presented for this edition.

The subject of this year for being treated in the Environmental Programme is the Water Defilement and Its Impact on Submarine Ecosystems.

We profoundly appreciate your interest in this committee and crescent problem. Fully convinced that you are going to have an outstanding participation with all you have to contribute to this committee, we wish you a memorable and fruitful experience.

Sincerely,

- The Chair of the United Nations Environmental Programme

President: Andrea Ramiro Varela
Secretary: María José Calafell de León
Moderator: Laura Irene Lee García

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HISTORY OF THE COMMITTEE

The United Nations Environment Programme (UNEP) is the leading environmental authority in the United Nations system. UNEP uses its expertise to strengthen environmental standards and practices while helping implement environmental obligations at the country, regional and global levels. UNEP's mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

UNEP re-organised its work programme into six strategic areas as part of its move to results based management. The selection of six areas of concentration was guided by scientific evidence, the UNEP mandate and priorities emerging from global and regional forums.

1. CLIMATE CHANGE UNEP strengthens the ability of countries to integrate climate change responses by providing leadership in adaptation, mitigation, technology and finance. UNEP is focusing on facilitating the transition to low-carbon societies, improving the understanding of climate science, facilitating the development of renewable energy and raising public awareness.

2. POST-CONFLICT AND DISASTER MANAGEMENT UNEP conducts environmental assessments in crisis-affected countries and provides guidance for implementing legislative and institutional frameworks for improved environmental management. Activities undertaken by UNEP's Post-Conflict & Disaster Management Branch (PCDMB) include post-conflict environmental assessment in Afghanistan, Côte d'Ivoire, Lebanon, Nigeria and Sudan.

3. ECOSYSTEM MANAGEMENT Facilitates management and restoration of ecosystems in a manner consistent with sustainable development, and promotes use of ecosystem services. Examples include the Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-Based Activities.

4. ENVIRONMENTAL GOVERNANCE UNEP supports governments in establishing, implementing and strengthening the necessary processes, institutions, laws, policies and programs to achieve sustainable development at the country, regional and global levels, and mainstreaming the environment in development planning.

5. HARMFUL SUBSTANCES UNEP strives to minimize the impact of harmful substances and hazardous waste on the environment and human beings. UNEP has launched negotiations for a global agreement on mercury, and implements projects on mercury and the Strategic Approach to International Chemicals Management (SAICM) to reduce risks to human health and the environment.

6. RESOURCE EFFICIENCY/SUSTAINABLE CONSUMPTION AND PRODUCTION UNEP focuses on regional and global efforts to ensure natural resources are produced, processed and consumed in a more environmentally friendly way. For example, the Marrakech Process is a global strategy to support the elaboration of a 10-Year Framework of Programs on sustainable consumption and production.

Founded in 1972 following the landmark UN Conference on the Human Environment, UNEP was conceived to monitor the state of the environment, inform policy making with science and coordinate responses to the world's environmental challenges.

Since its creation, UNEP has worked closely with its 193 Member States and other stakeholders to galvanize worldwide commitments and coordinated action to address many of the world's most pressing environmental challenges. It also played a leading role as the docking station for 15 multilateral environmental agreements.

INTRODUCTION

Unadulterated water is vital for mankind, however sadly, we disregard its significance. Our health may suffer if we are unable to access potable water. As per wellbeing specialists, numerous illnesses show up in the body after polishing off sullied water.

Even though water is available in plentiful amounts on this planet that is not reasonable for human utilization. You never hydrate since there could be the presence of parasites and weighty metals.

Water contamination is the defilement of water bodies, as a rule because of human exercises. Water bodies incorporate for instance lakes, streams, seas, springs and groundwater. Water contamination results when contaminants are brought into the indigenous habitat. For instance, discharging deficiently rewarded wastewater into common water bodies can prompt corruption of sea-going environments. Thus, this can prompt general medical issues for individuals living downstream. They may utilize the equivalent contaminated stream water for drinking or washing or water systems. Water contamination is the main overall reason for death and illness, for

example because of water-borne diseases. Water contamination can be delegated to surface water or groundwater contamination. Marine contamination and supplement contamination are subsets of water contamination.

Water pollution is all things considered achieved by human activities in this manner, thereby contaminating the water bodies. The wellsprings of water bodies consolidate streams, lakes, oceans, groundwater, etc. At the moment that the unfamiliar substances go into the water bodies, water defilement occurs. By conveying the waste water into the new water bodies can affect the maritime organic frameworks. Water contamination has turned into an expanding issue in our reality which is affecting the people. A portion of the impacts of the water contamination are passing amphibians, Food chain getting disturbed. The marine animals like fishes, crabs, birds, dolphins and so on will suffocate in light of the water contamination.

The new water is getting contaminated through many sources like metropolitan overflow, modern, rural, sedimentary, filtering from landfills, creature squanders and other human exercises. Water tainting is moreover segregated as surface or groundwater pollution. Water tainting is the central clarification of water-borne ailments in the whole world. The contaminated water can hurt the flow age just as the approaching gathering of individuals on the way. Water defilements can be harmful materials like oils, plastics, current wastes like acids, lead, mercury and various dangerous substances.

Each reclamation from the sea destroys an underwater habitat by building over or enclosing a body of water. A high density of reclamations on small shallow bottom areas represents a major form quantitatively of damage to the underwater environment. The destruction caused is irreversible.

Any assessment of the negative effects on marine ecosystems of reclamations from the sea is often perceived as hostile to development. This means that few studies have dealt with this conflictual and politically sensitive topic, and there has been little investment of funds or human resources devoted to this subject. As a result, taking stock of the full impact of developments on reclaimed land is often neglected.

We know that marine debris can cause serious problems for marine wildlife, but it can also damage the places they live, or their habitats. Marine debris can be found in the habitats that wildlife depend on, such as nearshore wetlands and mangroves, but it isn’t limited to these areas. Waste from human activities can even reach habitats in deep and remote places.

Marine debris can harm marine habitats in a variety of ways, including crushing or smothering sensitive plants and corals and reducing the light or oxygen that marine organisms need to survive. The movement of marine debris by tides, currents, and storms can result in repeated damage to marine habitats as more and more debris is deposited there. Researchers are working to learn more about how marine debris impacts these places.

HISTORICAL BACKGROUND

Water contamination is for the most part brought about by debased water which is principally by human activities. Mostly, people get affected by the water contamination. Many water-borne illnesses can be brought about by burning-through the contaminated water for instance cholera, typhoid, giardia, Diarrhea etc. Water from the houses will get converged into the oceans, rivers, lakes, lakes, and numerous other water bodies. This water can be contaminated and the living beings which live in it get damaged. The amphibian creatures and many plants can get affected.

Marine habitat loss or destruction is where the marine environment or a particular ecosystem degrades to a point where it is unable to support the animal and plant life that would usually reside there. This can be due to direct transformation, such as mining, dredging, construction or aquaculture. It is also due to indirect causes, mainly related to the four previous threats that we have spoken about in this series; ocean warming, acidification, pollution and overfishing.

As a result of this habitat loss, these environments stop providing what are termed ecosystem services, which are of immense ecological, social and economic importance. Ecosystem services are gifts to the populations around the ecosystem and the best way to illustrate what is meant by ecosystem services is to utilize an example. To do that, let us head to the southern tip of Africa and have a look at the kelp beds and temperate reefs that cover approximately 1000 Km's of the south western coast of South Africa.

Researchers from the University of Cape Town recently published a paper(1) that identified the services this ecosystem provides and evaluated their economic worth. They identified direct (commercial, recreational and subsistence fishing and ecotourism) and indirect (coastal protection, carbon fixation, nutrient cycling, biodiversity, research and education, and recreation) goods and services that benefit the surrounding communities. The figure is a staggering US$ 434 million per year, of which US$ 290 million directly contributes to South Africa's economy through the above mentioned direct services.

The Coastal Environment is By Far the Richest in Terms of Biodiversity

The marine environment is divided into two major domains where specific food chains are established. A distinction must therefore be made between the pelagic and the benthic environments.

The pelagic ecosystem is that of the open sea. The food chain is based on vegetal plankton (microscopic vegetal cells used by animal plankton, which is used by

pelagic fishes such as anchovies and sardines, which in turn feed the great predators: tuna, dolphin, etc.). These environments extend over the whole of the surface of the seas and oceans, in the well-lit superficial zone (mainly the zone situated between 0 and -100 m).

The benthic ecosystem is that of the sea bottom. This environment includes the species fixed on the sea bottom or buried in the marine substrate and those that need to live near the bottom to develop or to pass part of their life cycle. This life system is much more diversified than the previously cited one.

Water Pollution

Water is uniquely vulnerable to pollution. Known as a “universal solvent,” water is able to dissolve more substances than any other liquid on earth. It’s the reason we have Kool-Aid and brilliant blue waterfalls. It’s also why water is so easily polluted. Toxic substances from farms, towns, and factories readily dissolve into and mix with it, causing water pollution.

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Sewage and Wastewater

Used water is wastewater. It comes from our sinks, showers, and toilets (think sewage) and from commercial, industrial, and agricultural activities (think metals, solvents, and toxic sludge). The term also includes stormwater runoff, which occurs when rainfall carries road salts, oil, grease, chemicals, and debris from impermeable surfaces into our waterways

More than 80 percent of the world’s wastewater flows back into the environment without being treated or reused, according to the United Nations; in some least-developed countries, the figure tops 95 percent. In the United States, wastewater treatment facilities process about 34 billion gallons of wastewater per day. These facilities reduce the amount of pollutants such as pathogens, phosphorus, and nitrogen in sewage, as well as heavy metals and toxic chemicals in industrial waste, before discharging the treated waters back into waterways. That’s when all goes well. But according to EPA estimates, our nation’s aging and easily overwhelmed sewage treatment systems also release more than 850 billion gallons of untreated wastewater each year.

Big spills may dominate headlines, but consumers account for the vast majority of oil pollution in our seas, including oil and gasoline that drips from millions of cars and trucks every day. Moreover, nearly half of the estimated 1 million tons of oil that makes its way into marine environments each year comes not from tanker spills but

from land-based sources such as factories, farms, and cities. At sea, tanker spills account for about 10 percent of the oil in waters around the world, while regular operations of the shipping industry through both legal and illegal discharges contribute about one-third. Oil is also naturally released from under the ocean floor through fractures known as seeps.

Radioactive waste is any pollution that emits radiation beyond what is naturally released by the environment. It's generated by uranium mining, nuclear power plants, and the production and testing of military weapons, as well as by universities and hospitals that use radioactive materials for research and medicine. Radioactive waste can persist in the environment for thousands of years, making disposal a major challenge. Consider the decommissioned Hanford nuclear weapons production site in Washington, where the cleanup of 56 million gallons of radioactive waste is expected to cost more than $100 billion and last through 2060. Accidentally released or improperly disposed of contaminants threaten groundwater, surface water, and marine resources.

To address pollution and protect water we need to understand where the pollution is coming from (point source or nonpoint source) and the type of water body it's impacting (groundwater, surface water, or ocean water).

When contamination originates from a single source, it's called point source pollution. Examples include wastewater (also called effluent) discharged legally or illegally by a manufacturer, oil refinery, or wastewater treatment facility, as well as contamination from leaking septic systems, chemical and oil spills, and illegal dumping. The EPA regulates point source pollution by establishing limits on what can be discharged by a facility directly into a body of water. While point source pollution originates from a specific place, it can affect miles of waterways and ocean.

Nonpoint source pollution is contamination derived from diffuse sources. These may include agricultural or stormwater runoff or debris blown into waterways from land. Nonpoint source pollution is the leading cause of water pollution in U.S. waters, but it's difficult to regulate, since there's no single, identifiable culprit.

It goes without saying that water pollution can't be contained by a line on a map. Transboundary pollution is the result of contaminated water from one country spilling into the waters of another. Contamination can result from a disaster—like an oil spill—or the slow, downriver creep of industrial, agricultural, or municipal discharge.

Groundwater Pollution

When rain falls and seeps deep into the earth, filling the cracks, crevices, and porous spaces of an aquifer (basically an underground storehouse of water), it becomes groundwater—one of our least visible but most important natural resources. Nearly 40 percent of Americans rely on groundwater, pumped to the earth's surface, for drinking water. For some folks in rural areas, it's their only

freshwater source. Groundwater gets polluted when contaminants—from pesticides and fertilizers to waste leached from landfills and septic systems—make their way into an aquifer, rendering it unsafe for human use. Ridding groundwater of contaminants can be difficult to impossible, as well as costly. Once polluted, an aquifer may be unusable for decades, or even thousands of years. Groundwater can also spread contamination far from the original polluting source as it seeps into streams, lakes, and oceans.

Surface and Ocean Pollution

Covering about 70 percent of the earth, surface water is what fills our oceans, lakes, rivers, and all those other blue bits on the world map. Surface water from freshwater sources (that is, from sources other than the ocean) accounts for more than 60 percent of the water delivered to American homes. But a significant pool of that water is in peril. According to the most recent surveys on national water quality from the U.S. Environmental Protection Agency, nearly half of our rivers and streams and more than one-third of our lakes are polluted and unfit for swimming, fishing, and drinking. Nutrient pollution, which includes nitrates and phosphates, is the leading type of contamination in these freshwater sources. While plants and animals need these nutrients to grow, they have become a major pollutant due to farm waste and fertilizer runoff. Municipal and industrial waste discharges contribute their fair share of toxins as well. There's also all the random junk that industry and individuals dump directly into waterways.

Eighty percent of ocean pollution (also called marine pollution) originates on land whether along the coast or far inland. Contaminants such as chemicals, nutrients, and heavy metals are carried from farms, factories, and cities by streams and rivers into our bays and estuaries; from there they travel out to sea. Meanwhile, marine debris (particularly plastic) is blown in by the wind or washed in via storm drains and sewers. Our seas are also sometimes spoiled by oil spills and leaks and are consistently soaking up carbon pollution from the air. The ocean absorbs as much as a quarter of man-made carbon emissions.

Submarine Groundwater Discharge

Submarine groundwater discharge (SGD) is an underground pathway of exchange of water and dissolved materials between the land and ocean. The number of studies on SGD started growing at the break of the 21st century, and many hydrological and oceanographic processes have been identified and characterized, such as tidal effects on SGD, water and solute fluxes and transformations through the subterranean estuary, and geochemical transports by SGD from land to the ocean. Despite great progress in methodologies and local assessment of SGD published in the past two decades, there still remain many unknowns such as the impacts of SGD on coastal ecosystems, including fisheries and coral reefs, there are gaps in large scale and global assessment of SGD, the evaluation of differences between different types of SGD and pore water exchange are not yet explored, and so on.

SGD research is also important for groundwater resource management, because SGD and saltwater intrusion is a face and tail of the coin.

In this Research Topic, we collect state-of-the-art SGD studies including but not limited to field studies in bay, coastal, or basin scales, methodologies of assessment of SGD and its fresh and saline components, numerical simulations on SGD, evaluations of SGD on coastal ecosystems, and global assessment of SGD.

Coastal aquifers will be greatly affected by sea-level rise, changes in precipitation and land-use patterns, and increased groundwater withdrawal from aquifers. These effects will be reflected in changes in the magnitude and composition of SGD as well as the biogeochemistry of the subterranean estuary. Because of the importance of SGD on coastal geochemical budgets it is now timely to explore current and future expected SGD patterns and their effect on coastal biogeochemistry.

Basic Requirement for Water Filtration and Treatment

The water ought to be appropriately sifted and really at that time, it ought to be utilized for utilization. Simultaneously, any debased water that comes from homes, production lines, fabricating units, and handling plants ought not to be delivered in that frame of mind with practically no treatment. Softeners in UAE are now very useful. The ceaseless arrival of defiled water could antagonistically influence the climate. Thus, a few organizations are attempting to foster predominant as well as enduring arrangements.

In some cases, it is plausible that sullied water normally contains harmful and unfriendly components. The exercises of the people and the modern systems additionally exasperate what is going on.

Damage to the Marine Environment that is Underestimated

Each reclamation from the sea destroys an underwater habitat by building over or enclosing a body of water. A high density of reclamations on small shallow bottom areas represents a major form quantitatively of damage to the underwater environment. The destruction caused is irreversible.

Any assessment of the negative effects on marine ecosystems of reclamations from the sea is often perceived as hostile to development. This means that few studies have dealt with this conflictual and politically sensitive topic, and there has been little investment of funds or human resources devoted to this subject. As a result, taking stock of the full impact of developments on reclaimed land is often neglected.

The Coastal Benthic Environment is Highly Diversified in the Superficial Zone

The well-lit shallow bottoms (mainly between 0 and -20 m) are covered in vegetation consisting of macrophytes (algae and flowering plants such as, in the Mediterranean, Posidonia oceanica). This sub-sea vegetation is a source of food or shelter for a

specific fauna (herbivores, detritivores, etc.). In contrast, the bottoms where there is total obscurity (> -100 m) are only colonized by a poorly diversified and sparse fauna (only feeding on organic detritus falling from the surface).

The richest coastal benthic ecosystems (where the macroscopic algae and the flowering plants can develop) only extend over the superficial area of the continental shelf. In certain regions, such as the rocky coasts of Provence-Côte d'Azur and off the west coast of Corsica, the continental shelf is very narrow. The -20 m isobath is often found less than 500 meters from the shore. The richest zone in terms of biodiversity is in this case reduced to a narrow strip bordering the coastline. It is upon this strip of 'oasis' for marine life that the coastal developments are constructed.

Destruction is Cumulative and Irreversible

It is the total of all the areas reclaimed from the sea that should be taken into account to assess the overall impact. This accumulated total corresponds to the destruction of underwater habitats that can be estimated at the scale of geographical or administrative units (state, region, county (département), municipal or rural district (commune) or natural units (cape to cape, rocky coast, alluvial coast, etc.). Each additional construction adds to the total marine surface area destroyed.

In contrast to the other forms of damage to the marine environment, destruction by reclamations involving building over the sea or enclosing bodies of water is definitive. While local authorities may be able to reduce pollution at the source (sewage treatment plants, limitation of toxic discharges, etc.), it would be utopian to envisage the destruction of a harbor in the hope of recreating the destroyed marine habitat. Similarly, the idea that benthic ecosystems might spread offshore from the constructed areas must be ruled out. Those that exist already remain unchanged and the areas beyond do not correspond to the environmental conditions destroyed by the construction (too deep, too little light, etc.

How are Humans Impacted by Damaged Habitats?

Coral reefs, seagrass beds, mangroves, and salt marshes all play an important role in protecting coastal communities from tropical storms and flooding, but this protection is limited when habitats are damaged by marine debris. Many coastal communities also rely on these habitats for food.

Coastal habitats are often an attraction for tourists. However, marine debris on beaches and other popular recreational habitats is ugly and may keep people away. In coastal communities that are dependent on tourism, this can have a huge impact on the economy.

OBJECTIVE

The goal of the Chair is to help diplomats develop their abilities for communication, dialogue, resolution, and teamwork to find solutions for problems new ages are presenting in this society. Here we have the leaders of the outside world. Delegates are characterized by their open-mindedness, attitude, empathy and respect. These abilities will walk with delegates all the way to the Model to give the best of themselves.

We aim for a group of delegates that adequately represent their nations as their representatives. Having at every moment present the culture and ideologies of their delegation, diplomats may search for the well-being of the environment, more precisely, the water defilement impact over submarine ecosystems.

We have the focus of the discussion in retrospecting how we are responsible for the water defilement, analyzing how this affects the submarine ecosystems, its flora and fauna and how this contamination progresses. Having these points already clear in the caucus, we will be able to analyze how every nation can contribute to stop this progressive environmental assassination.

The Committee Chair of the United Nations Environmental Programme expects their delegates to found a solution to this assault on nature. Delegates must be open to give contributions merely proper to their nation, contemplating the responsibility they have and the limitations over economy and natural resources.

Go on Delegates, free all of the potential you have to save nature from the damage the human race has been making to it for a long time. You are the right ones to solve this problem and face this issue for the prosperity of the world.

- The Chair of the United Nations Environmental Programme.

COUNTRIES' BACKGROUNDS

Republic of Indonesia

Indonesia has many rivers that are scattered in various regions and act as transportation routes and support the economy of the local community. One such river is the Musi River of South Sumatera (Hartanto et al., 2019). One of the drinking water sources is the Ogan River, whose water is still assumed to be safe for drinking purposes (Rosyidah, 2017). The pollution found in the Musi River was caused by two factors: domestic and industrial activities. The domestic activity was said to affect more than the industries. This condition could be seen from the organic decomposition caused by household waste which was dominated by iron ranging from 288 to 453 mg L.

There is also big concern from both Timor-Leste and Indonesia governments about illegal, unreported and unregulated fishing. The Governments of Timor-Leste and Indonesia are taking action.

United States of America

The Clean Water Act, passed into law 50 years ago, has fallen well short of its goals, a new analysis finds. Nearly half of the rivers and streams across the U.S. are considered too polluted to meet quality standards for swimming, recreation, aquatic life, fish consumption or as drinking water sources.

Used water is wastewater. It comes from our sinks, showers, and toilets (think sewage) and from commercial, industrial, and agricultural activities (think metals, solvents, and toxic sludge). The term also includes stormwater runoff, which occurs when rainfall carries road salts, oil, grease, chemicals, and debris from impermeable surfaces into our waterways. Big spills may dominate headlines, but consumers account for the vast majority of oil pollution in our seas, including oil and gasoline that drips from millions of cars and trucks every day. Moreover, nearly half of the estimated 1 million tons of oil that makes its way into marine environments each year comes not from tanker spills but from land-based sources such as factories, farms, and cities.

Marine ecosystems are also threatened by marine debris, which can strangle, suffocate, and starve animals. Much of this solid debris, such as plastic bags and soda cans, gets swept into sewers and storm drains and eventually out to sea, turning our oceans into trash soup and sometimes consolidating to form floating garbage patches. Discarded fishing gear and other types of debris are responsible for harming more than 200 different species of marine life.

Republic of Philippines

The Philippines comprises 7,110 islands with a land area of about 300,000 square kilometers.

With the rapid increase in population, urbanization, and industrialization reduce the quality of Philippine waters, especially in densely populated areas and regions of industrial and agricultural activities. The discharge of domestic and industrial wastewater and agricultural runoff has caused extensive pollution of the receiving water-bodies. This effluent is in the form of raw sewage, detergents, fertilizer, heavy metals, chemical products, oils, and even solid waste.

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State of Palestine

The water situation in Gaza is catastrophic. Even before the war, Gaza had virtually no potable water. The population relied on a polluted and rapidly depleting aquifer, as well as a limited number of desalination plants that fell far short of meeting local needs. This has led to the alarming statistic that 97% of Gaza's water is unfit for human consumption.

The Water and Environmental Quality Authority in the Gaza Strip announced March 3 of 2021 that the oil spill that appeared in the Mediterranean Sea in early February has been washing up on the Gaza beaches, days after it reached the Israeli shores.
It remains unclear what exactly caused the oil spill that has polluted more than 170 kilometers (106 miles) of the Israeli beaches, reached the shores of the Gaza Strip and Lebanon, and harmed marine life in the area. Israel believes it was caused by a leak of 200 tons of oil from an oil tanker sailing 50 kilometers (31 miles) from the shores of Israel, Gaza and Lebanon.

People's Repúblic of China:

Over-exploitation of groundwater, overuse of surface water resulting in inadequate environmental flows, along with groundwater and surface water pollution, led to the decline and deterioration of water resources and damaged the freshwater and coastal environments of the Hai Basin.

The Indian Ocean is a vital area for China's "strategic and economic interests," Matthew Funaiole, a senior fellow at CSIS who worked on the report, told The Washington Post. Beijing is serious about fielding a blue-water navy, one that will be active in the Indian Ocean, and blurring the lines between its research ecosystem and its national security apparatus will help it get there.

Japan

Major pollution problems in Japan have been manifested in outbreaks of mercury and cadmium poisoning in humans and in nationwide occurrences of large fish kills, and fishes with offensive odor or skeletal anomalies. At first, concerns about chronic effects of water-borne toxic chemicals on aquatic life (fish neoplasms, for example) were relatively minimal, because these other acute problems had been so severe. Because of the strong Japanese dietary preference for fish and shellfish, however, more attention is being given to potential chronic effects and their causes. Removal of contaminated sediments from Udono Harbor and Shingu River Estuary, for example, appears to have reduced tumor incidence in fish from 40–50% prior to 1983 to about 20% in 1984–1985. Japan still faces coastal water pollution caused by petroleum hydrocarbons, pesticides, dioxins and dibenzofurans, and the integrated circuit industry (trichloroethylene, etc.), and many semi-enclosed estuaries remain severely polluted.

Russian Federation

While water pollution from industrial sources has diminished because of the decline in manufacturing, municipal wastes increasingly threaten key water supply sources, and nuclear contamination could leach into key water sources as well.

Solid waste generation has increased substantially due to adoption of Western-style consumption patterns. Russian municipalities, however, lack management expertise and landfill capacity to cope with disposal problems.

Russia is a polluter of adjacent seas, dumping industrial and municipal wastes, chemical munitions, and, until the mid-1990s, solid and liquid radioactive wastes.

Governments and environmental groups are worried a rupture of nuclear fuel supplies could cause a nuclear catastrophe, impacting local fishing areas. The Russian government is working to solve the problem, which some experts are calling a potential “Chernobyl in slow motion on the seabed.”

People’s Republic of Bangladesh

Water pollution in Bangladesh is a multifaceted problem with various sources contributing to its severity.

Bangladesh's burgeoning industrial sector is a major contributor to water pollution. Many industries discharge untreated effluents directly into rivers and water bodies. The chemicals and heavy metals in these effluents contaminate water, posing significant health and environmental risks.

Inadequate sewage treatment facilities in urban areas result in the release of untreated wastewater into rivers and canals. This untreated sewage contains pathogens and other pollutants, making water unsafe for consumption and recreation.

Socialist Republic of Vietnam

Water pollution is currently one of the greatest environmental challenges for Vietnam. It damages the health and livelihoods of millions of people, negatively affects tourism and fisheries, and destroys surface and coastal water ecosystems. The U.S. Agency for International Development's (USAID) Collective Action for Water Conservation project forms a community of concerned stakeholders and supports them to raise public awareness, collect data, and advocate for better local water conservation practices to reduce water pollution.

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