



Certainly Not a Waste of Time

“Our community used to look like a dump site. No one collected the garbage and people were throwing their wastes everywhere — in the canals, empty lots and even in the small spaces between the houses. The bad smell from the garbage was causing all sorts of sickness, but people were unaware of this.” Such is the perspective of Ms. Chap Vanna, who leads the community-based waste collection system in Village 1, Sangkat 4, Sihanoukville, Cambodia.

For the past year, about 280 families in Village 1 have been organizing themselves to clean up their own community, and to get some training on the basic concepts of waste management. As a first step in the PEMSEA-supported project, baseline information was gathered by interacting with about 187 household members, with the assistance of the Environmental Science Department of the Royal University of Phnom Penh (RUPP). A community-based solid waste management project was then designed and implemented by the community members themselves.

“The baseline information provided us with a clear picture of community dynamics. For instance, we were able to set-up the tariff scheme based on the willingness-to-pay survey. We also strongly encouraged women to be involved as they are usually left at home to manage the households. About 70 percent of the children aged 6-17 years are also going to school, which makes it wise to tap the schools for the promotion of waste management,” Mr. Prak Visal of the Municipal Government said. A drop-in, buy-back materials center was subsequently set up in Hun Sen Krong Primary School to encourage the school children to collect recyclables, and to earn some money at the same time. The recyclables are being regularly picked up by local junk shop operators.

As part of the information campaigns, leaflets were distributed and posters and signages were put up around the community to remind the public of the importance of waste management. Community cleanup drives were conducted as well, to transform training activities into community actions.

“We’ve done cleanups not only to remove the old garbage but also to promote community cohesion. It is an important time for the community to get to know their neighbors and strengthen their connection. The project gave us an opportunity to work together. If we are to make this project work, the community should act as one,” Mr. Visal commented.

Going around the community, the village leaders pointed out the areas where mounds of garbage used to be found. It is estimated that 170 tons of old garbage have been removed from the community during community cleanups. Garbage bins have been distributed to every 10 families to maintain proper waste disposal.

CINTRI, the private contractor responsible for garbage collection in Sihanoukville, expressed that it has been difficult for them to collect the garbage from the village since the roads are too narrow to be accessed by the trucks. The participation of CINTRI in the project resulted in an agreement with the community. The community will be responsible for collecting the wastes from the households for delivery to transfer stations, while CINTRI will be responsible for the regular collection of waste from the transfer stations. Village leaders have been tasked with the collection of household tariffs, with a 60–40 sharing scheme between the community and the company. In the succeeding months, households were paying for the waste collection services.

But what happens when a household refuses to pay the tariff?

“We invite them to discuss the matter with the Commune Council, and we explain to them that tariff is being used to pay for the waste collection services, with residual funds being set aside as a commune fund that can be used in case of emergency. We have our records and we always show this to them,” Ms. Vanna said, presenting a ledger with a list of households and tariffs paid.

“Other communities envy what we’re doing. They keep on asking us why and how is it possible that we can clean up our own community and earn a bit of funds for the community. They feel that they also need to implement the same thing, but they don’t know where to start because it is difficult to organize communities and get their cooperation. We need to continue what we started, and hopefully, earn some more funds so that we can lend money to community members who want to put up their own toilets,” Ms. Vanna said.

“Solid waste management is not a technical problem. You don’t need sophisticated equipment to get communities to properly observe waste management. You need to get people to recognize that it is a need and start working based on their commitment. Communities have to be involved in the process and not just passive recipients,” Ms. Va Dany of RUPP said.

Cambodia’s sub-decree on solid waste management was adopted in April 1999. But implementation and enforcement of the sub-decree has been constrained due to financial and human resource limitations. The PEMSEA-supported project demonstrates that with

the commitment of local champions, waste can be transformed from a problem to a community resource.



PEMSEA, DENR-Manila Bay and Bataan Celebrate Earth Day

The Philippines joined the rest of the world on 21 April to salute the international observance of Earth Day with various activities nationwide spearheaded by the Department of Environment and Natural Resources (DENR) and Earth Day Network Philippines. The observance included a series of lectures, exhibits, displays and activities that ran from 19–24 April. In Malacañang, President Gloria Macapagal-Arroyo delivered a keynote speech, kicking off the observance of the Earth Day.

The 14th Annual Pasig River Fluvial Parade organized by DENR and Sagip Ilog Pasig Movement ran from the Escolta station of the Pasig River ferry system to the Polytechnic University of the Philippines (PUP) linear park. Around 30 boats, led by DENR Sec. Angelo T. Reyes, participated in the event.

After the parade, the Annual Lason sa Ilog Pasig Awards — a mock awards given every Earth Day — were given to the top ten firms that have continuously polluted the Pasig River and other water tributaries. This has gotten positive feedback since the majority of the past awardees have installed wastewater treatment facilities because of the pressure created by the event.

Sec. Reyes explained that this year's international theme "Climate Solutions Campaign" reflected a growing sentiment among countries about the danger of carbon dioxide emissions.

In Bataan, about 20,000 mangrove seedlings were planted along a two-km coastal stretch of the Municipality of Orion, in line with the celebration of Earth Day and the provincial integrated coastal management (ICM) program. The people's organizations in this town together with hundreds of volunteers from the provincial and local governments, Bataan Coastal Care Foundation, Inc. and other sectors trooped to Orion to participate in the mangrove-planting activity and coastal cleanup.

Other activities lined up for the Earth Day 2007 celebration included the National Summit on the State of Philippine Rivers on April 20–21 April; environmental concerts (Earth Jam); Environmental Art Installations and cultural shows at the Cultural Center of the Philippines (22 April); 8th Tour of the Fireflies, with the theme "Recycle: Balik

Bisikleta” (23 April); and Recyclables Collection and Buying Events at the Rockwell Power Plant mall (24 April).

The first Earth Day was held in the United States in 1970, marking a milestone in history where environmentalism took centerstage and was translated into concrete action as a chance for people around the world to celebrate the planet and our responsibility toward it.

In the Philippines, Earth Day celebration started in 1990 after then President Corazon C. Aquino issued Proclamation No. 553 on 16 April 1990, mandating 22 April of every year as Earth Day in the Philippines.



EUF: Environmental Financing for Puerto Galera

PUERTO GALERA, PHILIPPINES -- An Environmental Users Fee (EUf) System has been approved by the municipal Sangguniang Bayan (SB) of Puerto Galera with the recent adoption of an ordinance covering local government financing of environmental undertakings. Proponent councilors, Mr. Raffy Cataquiz and Mr. Daniel Enriquez ably defended the proposed EUf ordinance before the committee hearing of Mindoro Oriental province's Sangguniang Panlalawigan (SP), held on 13 March.

The EUf System imposes fees on tourists upon entry to Puerto Galera for the enjoyment of the municipality's environment and natural resources. Mr. Luis Castillet, SP Chair of the Committee on Environment, posed several questions on the legality of the use of funds, fund allocation, as well as the concern on the creation of a class distinction. Councilor Cataquiz stressed that the collection of the EUf is important to the environment and the people of Puerto Galera. The funds generated from the EUf collection will be used to finance activities under the Coastal Resource Management (CRM) Plan, which is aimed at addressing the environmental problems, as well as improving the lives of the people of Puerto Galera. While the fees will be collected from tourists, the local people also share the burden through payment of garbage collection and other user fees.

PEMSEA, World Wide Fund for Nature (WWF), SB Councilor Isidro Bunquin and other stakeholders were also present at the SP committee hearing to provide support for the draft ordinance. Mr. Adrian Ross, Technical Coordinator of PEMSEA, expressed support for the ordinance and highlighted its importance as a viable source of additional funds to finance the proposed sewage treatment facility, as well as other environmental projects in Puerto Galera.

In conclusion, SB Enriquez informed the Committee of the letter of Department of Environment and Natural Resources (DENR) Secretary Angelo Reyes, addressed to Puerto Galera Mayor Aristeo Atienza, hailing the development of the EUf ordinance. Secretary Reyes was quoted as saying that the efforts of the government of Puerto Galera "in pursuing the sewage treatment as a priority project in [the] municipality and implementing the Environmental Users Fee as a financing mechanism to support [its] environmental activities will serve as a model for other tourist sites in the Philippines."



ANAK-Balayan: Communities in Action towards Sustainable Development

BATANGAS, PHILIPPINES -- The ANAK-Balayan or Ang Nagkakaisang Mamamayang Kostal ng Balayan, Inc (unified citizens in the coastal areas of Balayan) is a federation of 13 people's organizations in the coastal communities of Balayan municipality, Province of Batangas, Philippines. It was established in 1995 and, at present, has about 700 members.

ANAK-Balayan is a recipient of a project grant in support of multisectoral partnership building for the sustainable development of the municipal waters of Balayan, under the joint UNDP-GEF Small Grants Programme (SGP)-PEMSEA partnership arrangement. The major focus of the project is policy advocacy, partnership co-ordination and capacity building. The project benefits from the achievements and capacities of ANAK-Balayan that were built over the years, along with the technical assistance of the Batangas Environment and Natural Resources Office as well as other partner organizations, including the Bureau of Fisheries and Aquatic Resources, Department of Environment and Natural Resources, Department of Science and Technology, Department of Trade and Industry, Batangas State University, and Conservation International. Partner institutions support the federation through capacity-building initiatives, such as fish stock assessment (Batangas State University), management and rehabilitation of fish sanctuaries and reserves (Conservation International), and water pollution data gathering/environmental monitoring (Environment and Natural Resource Office of the Provincial Government of Batangas).

The sustained efforts of ANAK-Balayan have resulted in local improvements in fish resources. Based on a fish stock assessment conducted recently, there was an increase in the average fish catch per unit effort in four communities. This was attributed to the community fishing regulations that are being enforced, and the determination of the community to conserve its natural resources. The major target outputs for the next half of the project include declaration of fish reserves and protected areas, creation of a Resource Conservation and Environmental Council and preparation of a comprehensive land- and water-use plan for the coastal areas of Balayan.



A Hundred Days after the Youth Forum

Last 25 March marked the 100th day of the signing of the Youth Agenda and the youth participants, in coordination with PEMSEA, initiated some actions to celebrate the occasion.

The first East Asian Seas (EAS) Youth Forum held in Haikou City on 11-15 December 2006, as one of the highlights of the EAS Congress 2006, brought together 45 young leaders from 10 countries in the East Asian Seas region. The Youth Forum provided them the opportunity to learn more about the current trends in environmental management and to enrich their knowledge and experience through interaction with fellow young leaders and respected experts, CEOs and policymakers.

The Youth Forum enabled the participants to develop a comprehensive yet creative and practical Youth Agenda that covered a common vision, set of recommendations and plan of action that focused on informing, inspiring, involving and empowering one's self as well as other young people. Each participant contributed innovative ideas and signified their personal commitment by signing the Youth Agenda for the EAS on 15 December.

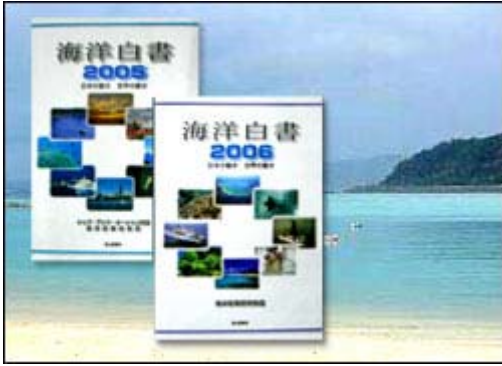
To mark the 100th day, the youth participants distributed to friends and colleagues a common e-mail message imparting the invaluable lessons and memorable experience they gained during the Youth Forum as well as the Youth Agenda. They encouraged other youth to refrain from using plastic straws when drinking their favorite cola or juice and also to pick up rubbish they come across, even just for a day. A short story entitled "The Wise Man," relaying how each person has the ability to make a difference even by doing small deeds, was also included in the message. Some of the participants also posted the same message in their individual blogs to inform and inspire online readers.

Mr. Ratana Sopha, a delegate from Cambodia, initiated an environmental session in the Institute of Foreign Languages campus where groups of participants took pictures of some environmental issues visible around the campus. The participants captured interesting shots on noise pollution, CFC problems, rubbish outside the bins, and fish tank pollution, to name a few. The participants then discussed solutions, including a suggested visit to a landfill area in Phnom Penh for educational purposes. Mr. Sopha shared with the group the experiences of fellow Youth Forum participants, including how Ms. Cris Evert Lato of the Philippines celebrates her birthday by planting a tree each year and how the survey initiative of Mr. Mervin Low of Malaysia on the use of Styrofoam

containers in University Sains Malaysia led to a ban on the use of Styrofoam containers within the campus. Copies of the Youth Agenda were also distributed to give participants more ideas on how to contribute to the environment.

On the same day, delegates from Hainan Province, PR China, revisited the pine trees planted during an outdoor activity of the Youth Forum at the Evergreen Park in Haikou City. Like the trees that have become deeply rooted and stronger after a hundred days, the ties between the participants and their commitments, which were exemplified in the Youth Agenda, have deepened and are manifesting into concrete activities and actions.

The Outputs and Outcomes of the Youth Forum as well as the Youth Agenda is available at www.pemsea.org/eascongress/index_multimedia.htm.



Japan's Ocean Policy in the Making

TOKYO, JAPAN -- A basic ocean law is under deliberation at the Diet of Japan, and is expected to be enacted within the year.

A paper entitled "Outline for an Ocean Policy: Towards the Establishment of a New Ocean State" is being circulated to members of the Japanese Parliament, which promotes for the establishment of a Basic Law of the Ocean in Japan. The key point emphasized in the paper is to make Japan an "Ocean State," thereby providing the legal and moral basis for the country to put more attention on marine affairs both within the country's territorial waters and in the use of Exclusive Economic Zones (EEZs) and the High Seas.

The proposed Basic Ocean Law focuses on the need to formulate a Basic Plan for the Ocean, the creation of an administrative organization for ocean administration, and appointment of an ocean minister. The current subdivision on ocean of the Ministry of Land, Infrastructure and Transport (MLIT) will be upgraded into a full division. This is viewed to strengthen the implementation of the basic law once it has been enacted.

Moreover, the Basic Ocean Law hopes to achieve the following:

- sustainable development of and use of the ocean;
- enhance scientific knowledge on the ocean through research and development;
- achieve healthy development of marine industries engaged in ocean development;
- promote multistakeholder involvement in ocean management; and
- establish Japan's leadership role in forming an international order in ocean development.

In response to the United Nations Convention on the Law of the Sea (UNCLOS), the Rio Declaration and other international environmental instruments and the growing concerns in Japan's ocean environment, various entities in Japan have campaigned for the need to elevate the ocean agenda to a national law. The Ocean Policy Research Foundation (OPRF) is one of the major entities that have been instrumental in the development of the National Ocean Policy of Japan. As part of its efforts to push for the ocean law, the OPRF organized an Ocean Forum on 27 February which tackled the issues surrounding the development of the National Ocean Policy. The Forum gathered representatives from

different sectors, key ocean-related government agencies, universities and institutions around the country.



PEMSEA Delivers Task Force Report to Nippon Foundation

TOKYO, JAPAN -- The Nippon Foundation Research Task Force on the Dynamics of Regional Cooperation on Oceans and Coasts has successfully completed its third and final phase. The PEMSEA Regional Programme Office which provided assistance in the implementation of the project presented its final report to the Nippon Foundation on 28 February.

The Task Force report detailed project accomplishments, including:

- The publication of The Dynamics of Regional Ocean Governance entitled “From Ripples to Waves,” Tropical Coasts, Vol. 13 (1);
- The proceedings of the East Asian Seas Congress 2006 which included the Workshop on Regime-building in Coastal and Ocean Governance, held in Haikou City, Hainan Province, PR China; and
- A CD compilation of Nippon Manuscripts on Regional Ocean Governance.

The Nippon Foundation expressed their appreciation to PEMSEA for successfully completing all milestone projects under the initiative. During the meeting, Mr. Takashi Ito, Department of Maritime Affairs, The Nippon Foundation, also provided a brief presentation on the future direction of Nippon Foundation support. He emphasized that the priority of the Nippon Foundation will still be on capacity building for the marine sector. The need to support local government initiatives was also discussed.

The Task Force project activities began in March 2004 and were divided into three major phases. The Research Task Force focused on gathering information on and studying regional approaches in ocean governance and capacity building.

While the project has been completed, the Nippon Foundation recently approved the extension of the collaboration between PEMSEA and Nippon up to September 2007 to undertake a special project. The project involves the finalization and publication of the Nippon Manuscripts on Regional Ocean Governance by September.



Research Policy Studies Presented in 10th OPRF Research Council Meeting

TOKYO, JAPAN -- The 10th Meeting of the Ocean Policy Research Foundation (OPRF) Research Council was held 26-27 February, where seven research fellows at OPRF presented the final reports of their two-year period research work.

Some of the studies presented included Legal Framework for Extraterritorial Sea Management, Analysis of Citizen Participation in Coastal Zone Management, Study of Social Resources for Achieving the Regional Coast Management, among others.

Experts from various academic disciplines and members of the Council including Dr. Chua Thia-Eng, Regional Programme Director, PEMSEA, participated during the discussions and provided comments on the studies.

Over the last few years, OPRF has made significant efforts in building the capacity of young Japanese in ocean affairs through provision of research fellowships. The research papers are currently being finalized, taking into consideration the insights and comments raised during the Council Meeting. The papers will be published within the year.



Danang Gets Ready for the 2007 PNLG Forum

XIAMEN, PR CHINA -- Danang City, Vietnam, is hosting the 2007 Forum of the PEMSEA Network of Local Governments (PNLG) for Sustainable Coastal Development, to be held from 5-7 September 2007. In consideration of the region's exposure and vulnerability to a wide range of man-made and natural hazards, the theme of the 2007 forum is "Addressing Coastal Security by Investing in Natural and Man-made Hazards Prevention and Management."

Similar to the previous forums, which have been conducted since the launching of the PNLG in 2001, the gathering will serve as a venue for knowledge sharing among the resource persons and local government members and observers from the different countries of East Asia. As host, Danang is covering the local expenses of representatives from the 30 ICM demonstration and parallel sites of PEMSEA as well providing logistical support for the organization of the forum.

The Xiamen-based PNLG Secretariat arranged an organizing committee meeting on 21 March in Xiamen, PR China, to discuss the preparatory activities for the forum. Representatives of the PNLG officers from Xiamen and Bataan, Philippines, respectively, the local government of Danang, the PNLG Secretariat, the State Oceanic Administration of China who represented the 10 ICM parallel sites in China, and the PEMSEA Regional Programme Office (RPO) attended the meeting. The program, potential resource persons and participants, timetable, budget and the roles and responsibilities of the various committee members were discussed during the meeting. The Vice Mayor of Danang City, Mr. Van Huu Chien, who was appointed Chair of the Local Organizing Committee, conveyed Danang's interest and commitment in hosting the forum. Danang is now actively undertaking the necessary preparatory activities in coordination with the PNLG Secretariat and the PEMSEA RPO.

The PNLG is open for membership to all interested local government units and other stakeholders within and outside the East Asian Seas region. For inquiries about the network and on the forthcoming forum, the PNLG Secretariat can be contacted at pnlg.secretariat@gmail.com.



PEMSEA and SENSE Discussion Highlights Areas for Cooperation

XIAMEN, PR CHINA -- The Swedish Environmental Secretariat for Asia (SENSA) has communicated its intent to collaborate with PEMSEA for the implementation of the Sustainable Development Strategy for the Seas of East Asia.

A brainstorming session was arranged in Xiamen, PR China, from 18-20 March 2007 to discuss potential collaborative activities. A site visit was also conducted while in Xiamen to allow the group of SENSE delegates, headed by Dr. Anders Granlund, Senior Regional Advisor, to witness how Xiamen developed and established the necessary enabling conditions to support ICM implementation for the past 12 years. The site visits at Yuandang Lake, Round Island coastal road and the Gulangyi Island, as well as the discussions with experts from Xiamen University and Xiamen Ocean and Fisheries Bureau provided the SENSE group with solid evidence of how the city has successfully mobilized the dynamic process of ICM. The SENSE group was particularly impressed with Xiamen's determination in transforming the ICM program from a project-based initiative to a government-sustained program.

Potential collaborative activities for 2007 between PEMSEA and SENSE that were discussed included: a) facilitating private sector participation from Sweden in the Xiamen World Ocean Week celebration scheduled for November 2007; b) developing a sister city relationship between Stockholm and Xiamen; c) participating in the 2007 PNLG Forum in Danang, Vietnam, scheduled for September 2007; and d) serving as one of the co-convenors/sponsors for the East Asian Seas Congress 2009, especially focusing on media involvement in promoting environmental sustainability.

The partnership between PEMSEA and SENSE is expected to be finalized following a planned visit by SENSE to the PEMSEA Regional Programme Office in Manila in May 2007.



Construction of PEMSEA's New Building Begins

QUEZON CITY, PHILIPPINES -- The construction of PEMSEA's new building has started. Secretary Angelo Reyes of the Philippine Department of Environment and Natural Resources (DENR) acknowledged the contribution made by PEMSEA to the Philippines, and to the region, during his remarks to the Second Ministerial Forum held in Haikou City, Hainan Province, PR China. On behalf of the Government of the Philippines, Sec. Reyes offered to continue hosting the Regional Programme Office (RPO) and to provide the necessary administrative and technical support. This included the provision of additional space for the RPO.

The new building will be the office of the PEMSEA Resource Facility, which will offer secretariat and technical services. The space assigned for the new building is located adjacent to the RPO's present office in the DENR compound. Completion of the two-storey building is expected by the end of September.

The Philippines, through the DENR, has been hosting the PEMSEA RPO since the first phase of the Regional Programme.

PARTNER NEWS



29th Meeting of National RCA Representatives Prioritized 2009-2011 Cycles

Sydney, Australia - National Regional Co-operative Agreement (RCA) Representatives of 17 RCA Member States met in Sydney, Australia on 19-23 March 2007 to review past programs and consider programs for forthcoming cycles (2009-2011). The National RCA Representatives also tasked the RCA Regional Office (RCARO) through its Standing Advisory Committee (SAC) for more enhanced contributions for the benefit of Member States in increasing RCA visibility and for promoting RCA partnerships.

The 29th Meeting of National RCA Representatives was held at Novotel Brighton in Sydney, jointly organized by the International Atomic Energy Agency (IAEA) and the Australian Government through the Australian Nuclear Science and Technology Organization (ANSTO). Mr. Ian Smith, CEO of ANSTO, welcomed the participants on behalf of the host organization. Representatives of RCARO and IAEA (as the RCA secretariat) also attended the meeting.

The RCA Member States commonly felt the need to achieve sustainable development of RCA projects, particularly the closed projects, for earning maximum benefits from these projects. It was noted that the sustainability is especially important since the major benefits might not be realized until some years later.

The meeting also tasked RCARO to enhance RCA visibility, as well as viability. More beneficial interactions with the end-users of Member States in using advantageous nuclear technologies was requested. Partnerships with other international or regional development organizations were reiterated as RCA's traditional policy. RCA's participation in international and regional conferences was encouraged with adequate consideration of their impacts. RCARO's timely facilitation of the initiated partnership promotion programme, in particular the on-going RCA-UNDP Post-tsunami Environmental Impact Assessment Project (2006-2008), was also highly appreciated by the Member States.

The 17 Member States are Australia, Bangladesh, People's Republic of China, India, Indonesia, Japan, Korea, Malaysia, Mongolia, Myanmar, New Zealand, Pakistan, Philippines, Singapore, Sri Lanka, Thailand and Vietnam.

For further information, please visit
http://www.rcaro.org/board/view.php?board=rca_whatisNew&no=425.



Pathbreaking Methods for Improving Water Quality Give American Professor the 2007 Stockholm Water Prize

Stockholm, March 22, 2007 – Professor Perry L. McCarty from Stanford University, California, a pioneer in the development of the understanding of biological and chemical processes for the safe supply and treatment of water, was today named the 2007 Stockholm Water Prize Laureate.

Professor McCarty's work has led to more efficient biological treatment processes, in particular anaerobic (oxygen-less) treatment systems for municipal and industrial wastewaters, biological nutrient removal, and the development and use of biofilm reactors.

In its Citation, the Nominating Committee wrote: "Professor Perry L. McCarty is awarded the 2007 Stockholm Water Prize for pioneering work in developing the scientific approach for the design and operation of water and wastewater systems. He has established the role of fundamental microbiology and chemistry in the design of bioreactors. Professor McCarty has defined the field of environmental biotechnology that is the basis for small-scale and large-scale pollution control and safe drinking water systems."

The Stockholm Water Prize is a global award founded in 1990 and presented annually by the Stockholm Water Foundation to an individual, organization or institution for outstanding water-related activities. The activities can be within fields like education and awareness-raising, human and international relations, research, water management and water-related aid. The Stockholm Water Prize Laureate receives USD 150,000 along with a glass sculpture, which will be presented August 16 during the 2007 World Water Week in Stockholm. H.M. King Carl XVI Gustaf of Sweden is the Patron of the Stockholm Water Prize.

Being an environmental engineer, Professor McCarty has combined deep knowledge in physical, chemical, biological and microbiological processes and transferred the results into outstanding technical development widely used all over the world as the basis for design and operation of wastewater treatment systems.

Professor McCarty's other important contribution was the identification of mechanisms for biodegradation and the fate of hazardous and anthropogenic trace chemicals as well as appropriate engineering for water quality improvement of ground- and surface water and soils.

All of his earlier research findings and theoretical developments have been incorporated into these recent studies and culminated in his fundamental theory of water quality improvement in surface and groundwater as well as biological treatment of polluted soils (bioremediation). This is an enormous accomplishment and brings together a unified concept derived from physical, chemical and biological phenomena into integrated management for water quality improvement.

Professor McCarty has furthermore tackled the important problem of organic compounds and pollutants in wastewater and underground aquifer systems. His work has led to the development and practical implementation of methods to treat toxic chemicals in groundwater, especially chlorinated pollutants from industry.

For more information, visit www.siwi.org and http://www.siwi.org/press/presrel_07_SWP_Winner_Eng.html.

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