

Reduction and Elimination of Persistent Organic Pollutants (POPs) in China

Alternatives to DDT Usage in the Production of Antifouling Paint

The Challenge

Persistent Organic Pollutants (POPs) are chemicals that remain intact in the environment for long periods, accumulate in living organisms, and are toxic to humans and wildlife. Due to their mobility and persistence in the environment, they can circulate globally and negatively impact the environments they are found in.

China still produces 4 POPs pesticides for domestic use and export: DDT, HCB, Chlordane and Mirex. In China, DDT is added to paints as an antifoulant, to be released to form a toxic layer over the structure (e.g. vessels) which can kill the spores and larva of marine fouling organisms. However, during usage these antifoulants can contaminate marine water, induce biological variation, damage the marine food chain, and threaten marine ecological balance and human health. Annually, China consumes about 65,000 metric tonnes of antifouling paint. Surveys conducted during the PDF-B phase show that China has 300,000 fishing ships widely distributed along its 18,000 km coastline, which consume 10,000 t of antifouling paint. Approximately half of the paint, i.e. 5,000 t, is DDT based.

The Response

To address the key issues of the reduction and elimination of DDT, this UNDP/GEF project, "Alternatives to DDT Usage in the Production of Antifouling Paint" aims to substitute DDT-based antifouling paint by technically feasible, economically viable, and environmentally friendly alternatives. The binding objective of the project is to eliminate the use of 250 t/year of DDT as additives in the production of antifouling paint by conversion to non-toxic and environmentally friendly alternatives. In addition, the prospective objective of the project is to establish a long-term mechanism to protect marine environment and human health from pollution of harmful antifouling systems based on the technologies, experience and instruments obtained from phaseout of DDT-based antifouling paint. As a result, the project will also help to ensure the safety of marine food.

Achievements

A detailed assessment study and project design was undertaken in 2006 and the full size project was launched

in 2007 with the following project achievements anticipated: sustainability of the elimination and conversion of DDT; revision or establishment of related regulations and standards; creation of an enabling policy environment for the phase out of DDT-based antifouling paint; and promotion of sustainable alternatives. In addition, the successful experience in DDT phaseout will contribute to support China to accede to the International Maritime Organisation (IMO) Convention and elimination of TBT-based antifouling paint, in order to establish a long-term mechanism to protect marine environment and human health from pollution of harmful POPs.

At A Glance

Preparatory Phase: 2006
Full Project Phase: 2007-2010
Implementing Partner: State Environmental Protection Administration
Project ID: 00053562

UNDAF: Outcome 9 - Key UN conventions promoted through improved capacity to fulfill their obligations
MDG: Goal 7 – Ensure environmental sustainability
CPAP: Outcome5 - Within the framework of international norms, conventions, and their mechanisms, and of the Global Compact, China's role in the international arena is enhanced

Full Project Funding:
GEF Funding: US\$10,365,000
Government Contribution: US\$ 3,750,000
Private Sector: US\$ 8,500,000
Total Budget: US\$22,615,000

To contribute to this initiative, or to find out more about the project, please visit our website or contact Ms. Judy Li, Programme Manager at 86-10-8532 0737 or judy.li@undp.org

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