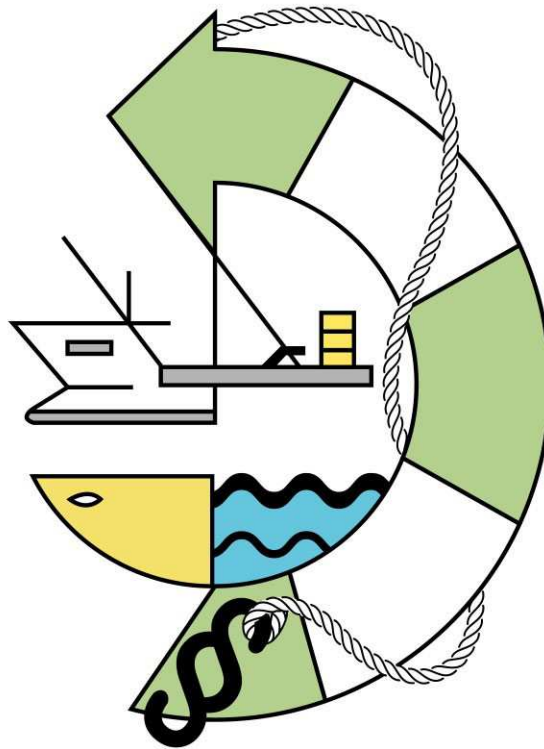


# Environmental and Safety Management in Ports

GTZ Product No. 067



**We support national governments and regional bodies to comply with international rules and regulations, aiming towards eco-efficient socially balanced economic growth.**

# Environmental and Safety Management in Ports

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# Environmental and Safety Management in Ports

GTZ Product No. 067

*Vision:*

*Our vision is to be recognized as a global service provider in the field of Environmental and Safety, Security and Management in Ports*



## 1.1 Product Description (Produkt Beschreibung)

The Product “Environmental and Safety Management in Ports” (ESMP) strengthens port authorities, private terminal operators and other public or private companies and supports them to comply with national and international rules and regulations.

Ports are the global interfaces in the transport system. They are the key factors for poverty reduction and economic development of any trading country. The contribution of the port industry to the global economy is much more significant than generally realized.

- Between 1970 and 2002: world sea borne trade increased 100% from 2.6 to about 5.8 billion tons this figure is likely to double during the next decades.
- According to conservative estimates, the total value of ocean-dependent goods and services presently adds up to something between 6.5 and 8.0 trillion dollars.
- Currently shipping is responsible for the carriage of more than 80% of the volume of goods traded globally.

The globalization bears many chances for economic development, but can be a threat as well, especially for the least developed, landlocked countries or small island States, because they often lack of stable trading conditions and efficient legal as well as institutional frameworks or management systems.

The product comprises several inter-related modules including harmonization of national regulations with international conventions, consultancy services, modern management tools and training packages fostering effective port operations and economic development, implementing strategies that include a commitment to good governance, development and poverty reduction.

**The GTZ supports national governments and regional bodies to take part in the globalization, comply with international rules and regulations, aiming towards economic development, eco-efficient socially balanced port management - sustaining trade worldwide.**

## 1.2 Benefits/Impact (Nutzen/Wirkung).

The target groups benefit from enhanced export, a stable and regional harmonized legal framework, efficient operations, increased safety as well as minimized environmental impact of port operations, leading to a higher degree of compliance with the rules and regulations and finally to an economically growing, safe and clean coastal zone contributing to the achievement of the Millennium Development Goals (MDGs). The product concept is based upon:

- **Enhanced compliance with international conventions**, improving compliance of countries in a regional approach
- **Stable, transparent and regionally harmonized legal framework** conditions for sustained, external trade and safe operations.
- **Efficient Management Systems** that reduce risks and pollution at source to prevent environmental and socio-economic damages (management).
- **Risk Management and Contingency Planning** to keep possible threats in emergency situations at the lowest impact level possible (risk management).
- **Improved Safety and health conditions through the provision of adequate training** and education for port personnel (training).
- **Close cooperation** and consultation between all stakeholders: shipping companies and agents, port and terminal operators, waste handling companies, port authorities, port municipalities, population of coastal zones and NGOs (mediation).
- **Transparency** of the transactions makes it possible to more effectively and efficiently use available resources to the benefit of all (communication).
- **Improved trading conditions**, minimizing trade barriers facilitating the export especially for landlocked countries in a regional approach

**Leading to the following impacts:**

- ✓ **Reduced poverty due to economic prosperity and export facilitation (MDG 1)**
- ✓ **Better living conditions and poverty reduction in densely populated coastal regions due to sustainable land use (MDG 1)**
- ✓ **Ensured port security maintaining food supplies of donor countries in emergency situations (MDG 1)**
- ✓ **Improve Safety of port operations and provide training ensuring less accidents of poor and unskilled labor forces (MDG 1)**
- ✓ **Promotion of women in the private and public port sector due to training and improvement of management skills (MDG 3)**
- ✓ **Efficient operation of ports with minimal environmental impact (MDG 7)**
- ✓ **Longer life expectations and child mortality for slum dwellers in coastal zones due to a cleaner environment (MDG 1, 4, 7)**
- ✓ **Improved trading conditions and eased export for landlocked countries and island States (MDG 8)**

The ESMP product concept is based upon the idea of sustainable port management, which will improve the safety and environmental conditions not only in ports, but also in adjacent coastal areas. As prescribed in the Millennium Development Goal (MDG) No. 7: Ensure environmental sustainability, Target 9: Integrate the principles of sustainable development into country policies and program and reverse the loss of environmental resources and health related targets/goals, though it is not directly impacting.

Sustainable development requires: compliance, effective management awareness, transparency, effectiveness, competitiveness, equal rights for women, commitment and environmental policies, as well as profitable handling, storage, pollution and accident prevention, cleaner processes and disposal systems as well as free and fair regional trading conditions in one line with international best practices and standards. Therefore, the product portfolio caters to the achievement of the Millennium Development Goals (MDGs) 1, 3, 4 especially Goal 7 and 8.

**The GTZ supports governments, ministries and ports to implement efficient management systems to prevent pollution, minimize disaster risks and reduce costs - sustaining trade, worldwide.**

### **1.3 Product Services (Leistungen)**

Regional or local policies and strategies will differ from region to country and sea ports to river ports, therefore versatile diagnosis and auditing checklists, management systems, training tools and measures have been developed to assist administrations and ports in the implementation taking strategic action. Our services comprise policy advice, support for institutional development, technical and managerial consultancy along with capacity building and training in the fields of safety and environmental management, health and safety measures, risk management, emergency and contingency planning:

- **Port and Coastal zone regulation and administration** (regulation, codes of practice, strategic action plans on environment/ waste/ health and safety, cooperation with adjacent users/ coastal zones, EIAs, integration into national/ regional plans).
- **Political framework for ports and transport** (market based instruments, port and transport legislation and regulation, standards and directives to achieve consistent policies and strategies for sustainable port management).
- **Diagnosis and international management systems as well as innovative technologies** (environmental management, safety and health, (ISO 14001, OHSAS 18001), risk management, security (ISPS)<sup>1</sup>, integrated prevention and pollution control (best available technologies), good housekeeping as well as waste management schemes

Our clients are governments, policy makers in environment and transport ministries, regional bodies, public and private port companies, administrations or terminal operators.

**We enhance compliance, awareness, effectiveness, provide training and improve safety, preventing accidents - for the achievement of a balance between economic development, safety and health as well as environmental protection.**

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<sup>1</sup> ISPS - International Ship and Port Facility Security Code of the International Maritime Organisation (IMO)

#### **1.4 Differentiation from Competitors (Abhebung in Wettbewerb)**

The Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH is an enterprise with worldwide operations in the field of international cooperation. We provide viable, forward looking solutions for political, economic, ecological and social development in a globalized world. GTZ promotes complex reforms and change processes. Its corporate objective is to improve people's living conditions on a sustainable basis.

GTZ is a federal enterprise based in Eschborn near Frankfurt am Main. It was founded in 1975 as a company under private law. The German Federal Ministry for Economic Cooperation and Development (BMZ) is its major client. The company also operates on behalf of other German ministries, partner-country governments and international clients, such as the European Commission, the United Nations or the World Bank as well as on behalf of private enterprises. GTZ works on a public-benefit basis. Any surpluses generated are channeled back into its own international cooperation projects for sustainable development.

We are successfully collaborating with international and regional organizations, such as the International Maritime Organization (IMO), the United Nation Conference on Trade and Development (UNCTAD), the International Labour Organization (ILO), the Association of South East Asian Nations (ASEAN), the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) and the European ECOPORTS Project, Foundation and ECONET.

Together with our partners we are operating in fields with high political, national or regional interests focusing on technical cooperation and consultancy in development themes such as environment and safety as well as security.

***The GTZ fills in a "niche" in the technical cooperation, reducing poverty by promoting economic development of ports, increasing stability and safety and preventing pollution in coastal zones within one product portfolio.***

#### **1.5 Economic feasibility (Wirtschaftlichkeit).**

The highest population density is most often found in coastal or river shore areas. In many major cities, the ports are located in the centre of the cities generating employment, but leading to pollution, creating conflicts in the vicinity. To solve these conflicts benefits all stakeholders. Increasing the ports performance, reducing environmental and safety risks contributes to the overall social-economic development of any country.

Efficient and competitive ports foster economic growth. According to a study from the Harvard University (1999)<sup>2</sup> ports play a vital role for the economic development in developing countries and countries with coasts and efficient ports show a higher degree of development as others in the same region. The following economic factors are related to the product:

- The reduction of trade barriers through compliance with international safety, security and environmental standards leads to sustained business.
- The harmonization of environmental regulations in trading regions facilitates trade and export.

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<sup>2</sup> John Luke Gallup, Jeffrey D. Sachs, Andrew Mellinger, March 1999  
Geography and Economic Development, CID Working Paper No. 1 Harvard University

- The implementation of international management systems increases the ports competitiveness in a global economy and enhances compliance.
- Training and capacity building improves the knowledge of the managerial staff as well as the port workers leads to higher degree of performance.
- Increased safety standards decreases the lost hours for sick leaves and improves the quality of life of dock workers. In many cases insurance fees can be reduced.
- Environmental protection and prevention of ecological damages increases the income of local fishing industry and improves the quality of life in often densely populated coastal zones.

In spite of continuous growth and economic prosperity ports spend only a minor part of their turnover on environmental and safety measures. About 64 % of the European ports have a specified environmental budget in the 2004 Benchmark. The majority of these funds were related to managing environmental incidents, whilst a much smaller proportion is related to environmental training or auditing. A large number of environmental of safety and security investments are still either subsidized or financed by state organizations, foreign donors or national governments.

The year 2003/2004 saw a sharp increase of investment in security to meet the requirements of the obligatory implementation the new International Ship and Port Facility Security (ISPS) Code as of 1 July 2004.

It can be estimated that 1 € spent on prevention saves 10 € otherwise spent for end-of-pipe measures or 100 € spent on environmental remediation.

***Fines and/or remediation costs are always higher than the costs involved in implementing Environmental and/or Safety Management Systems preventing risks and pollution from occurring.***

## 1.6 Region (Region)

“Environment, Safety and Management in Ports” is a service package that could be applied to ports worldwide. All new product modules and components are first developed in English and then translated into regional languages in our partner countries. Presently, two pilot-projects are successfully implemented launched in Eastern Europe and South America in cooperation with regional and national partners.

***The product will be marketed globally in commercial and industrial sea as well as river ports.***

## 1.7 Type (Typ)

Services of the environmental and safety management portfolio can be connected to/ combined with the following subjects:

- Compliance with international Conventions
- Environmental Policy and Sustainable Management of Natural Resources
- Transport and Communication policies
- Disaster prevention and mitigation

- Environmental Protection
- Occupational Safety and Health Management
- Water- and Wastewater Management
- Flora, Fauna and Habitat Protection
- Coastal Zone Management
- Protection of Water bodies and Oceans
- Solid / Hazardous Waste Management

The product is successfully implemented in the technical cooperation sector. Apart from the successful implementation of projects for the German Ministry for Economic Cooperation and Development (BMZ), there is a high potential for cooperation with multilateral organizations, linking up with financial cooperation projects, public or private organizations and companies as well as for Public-Private Partnership projects (PPP).

**The product is reducing environmental and safety risks by improving the ports performance and contributing to the overall social-economic development of our partner countries.**

### **1.8 Grade of performance (Reifegrad)**

“Environment, Safety and Management in Ports” (ESMP) is a product based on our experience in the transport, safety and environmental sector of the past decades. The GTZ has executed a magnitude of port projects since the 1970s. The main focus has evolved from classical technical assistance (hardware) and port privatization, to port safety, security and environmental management. In future the tendency is to operate in close cooperation with coastal zone management projects.

The “Environment and Safety Management in Ports” (ESMP) portfolio consists of consultancy services in the fields of good governance, change management, integrated management systems, modular training concepts and facilitation of management.

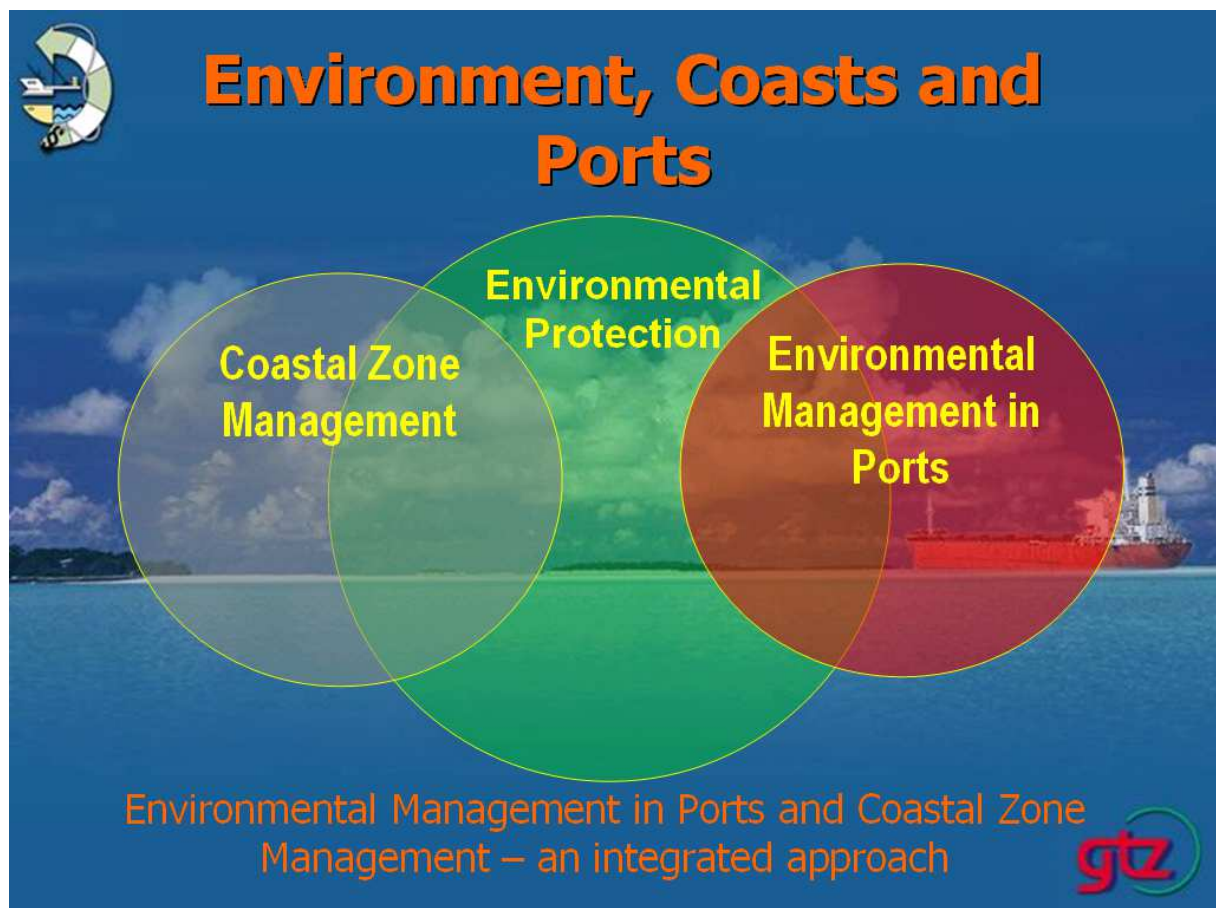
***In the past we have successfully implemented projects in areas such as overall port management, setting up legal frameworks, reducing safety and health risks in cargo handling and shipping operations and port environmental and safety management.***



## 1.9 GTZ Projects / References

The GTZ has worked in many port project since the 70ties, but the focus has evolved from technical assistance on installations, to port management, safety and ultimately to security and environmental management. The future tendency is to operate in close cooperation with coastal zone management projects. Security is the most recent topic and has no references so far. The references are divided into the three topics which form part of the product portfolio:

- Environmental Management/Safety
- Coastal Zone Management
- Port Management



### 1.9.1 Environmental Management

In the past decade environmental management gained a lot of importance in the technical cooperation field worldwide. Listed below are some selected GTZ project examples.

Description	Comments	Countries
<b>Environmental management in the small and medium industry</b>	The project under execution in central America can be found in the GTZ knowledge management files	Zentralamerika
<b>Support of the industrial park of Santa Rita do Sapucaí</b>	The project under execution in Brazil can be found in the GTZ knowledge management files	Brasil
<b>Support of financing organization for Waste management in Sao Paulo</b>	The project under execution in Brazil can be found in the GTZ knowledge management files	Brasil
<b>Environmental oriented Development program</b>	The project under execution in the Dominican Republic can be found in the GTZ knowledge management files	Dom. Rep.
<b>Eco-efficiency in the private sector</b>	The project under execution in Mexico can be found in the GTZ knowledge management files	Mexico
<b>Support of the small and medium industry</b>	The project under execution in Uruguay can be found in the GTZ knowledge management files	Uruguay
<b>Support of the competences in environment, communication and education</b>	The project under execution in Peru can be found in the GTZ knowledge management files	Peru
<b>Local and communal development</b>	The project under execution in Costa Rica can be found in the GTZ knowledge management files	Costa Rica
<b>Environmental orientated planning (zonification) in the metropolitan region of Santiago</b>	The project under execution in Chile can be found in the GTZ knowledge management files	Chile
<b>Industrial environmental protection in Minas Gerais</b>	The project under execution in Brazil can be found in the GTZ knowledge management files	Brasil
<b>Support of cleaner</b>	The project under execution in	El Salvador

<b>technologies and environmental oriented management in the small and medium industry</b>	El Salvador can be found in the GTZ knowledge management files	
<b>Consultancy of the environmental ministry</b>	The project under execution in Colombia can be found in the GTZ knowledge management files	Colombia

### 1.9.2 Coastal Zone Management

The following references have to do with coastal zone management or the protection of natural resources in coastal areas.

<b>Description</b>	<b>Comments</b>	<b>Countries</b>
<b>Environmental management in the coastal zone of Croatia</b>	The project under execution in Croatia can be found in the GTZ knowledge management files	Croatia
<b>Port consultancy in Shanghai</b>	The project under execution in China can be found in the GTZ knowledge management files	China
<b>Zonification of coastal zone VIII. Bio-Bio Region</b>	The project under execution in Chile can be found in the GTZ knowledge management files	Chile
<b>Protection and use of Mangroves</b>	The project under execution worldwide can be found in the GTZ knowledge management files	weltweit
<b>Erosion protection program in Rio Checua</b>	The project under execution in Colombia can be found in the GTZ knowledge management files	Colombia
<b>Integrated communal coastal zone development in Silago Bay</b>	The project under execution in the Philippines can be found in the GTZ knowledge management files	Philippines
<b>Pilot project: integrated coastal zone management for environmental friendly use aquatic resources</b>	The project under execution in India can be found in the GTZ knowledge management files	India
<b>Protection and management of natural resources in Mata Atlantica, Minas Gerais (SEMAD)</b>	The project under execution in Brazil can be found in the GTZ knowledge management files	Brasil

### 1.9.3 Port Management

Since the early days the GTZ is providing consultancy in the port sector, but the focus shifted from hardware (physical installations) more and to software and management skills.

<b>Description</b>	<b>Comments</b>	<b>Countries</b>
<b>Environmental Management in Latin American Ports,</b>	The project under execution in Latin America can be found in the	Latin America

<b>Latin America</b>	GTZ knowledge management files	
<b>Environmental and Safety Management in the Black Sea Ports Romania</b>	The project under execution in Romania can be found in the GTZ knowledge management files	Romania
<b>Improvement of maritime and inland waterways safety and institution Building in the field of maritime transport</b>	The project under execution in Romania can be found in the GTZ knowledge management files	Romania
<b>Training Network TRAINMAR, Latin America</b>	The project executed in Latin America can be found in the GTZ knowledge management files	Latin America
<b>Support of the Port of Constanza, Rumania</b>	The project executed in Romania can be found in the GTZ knowledge management files	Rumania
<b>Dangerous Cargoes in ASEAN Ports 1992</b>	The project executed the ASEAN region can be found in the GTZ knowledge management files	Asia
<b>Dangerous Cargoes in ASEAN Ports 1990</b>	The project executed the ASEAN region can be found in the GTZ knowledge management files	Asia
<b>Integration of safety and environment in the vocational training</b>	The project executed in Latin America and the Caribbean can be found in the GTZ knowledge management files	Caribbean
<b>Institutional development in the field of waste management</b>	The project executed Mexico can be found in the GTZ knowledge management files	Mexiko
<b>Support of the port of Constanza</b>	The project executed in Rumania can be found in the GTZ knowledge management files	Rumania
<b>Implementation of a system for safe transport and handling of Dangerous Goods/Cargoes</b>	The project executed in Thailand can be found in the GTZ knowledge management files	Thailand
<b>Consultancy to the port of Shanghai</b>	Can be found in the GTZ knowledge management files	China
<b>Master-plan for the port and gulf of Davao</b>	The project executed in the Philipines can be found in the GTZ knowledge management files	Philippines
<b>Consultancy to the port of Kuching</b>	The project executed in China can be found in the GTZ knowledge management files	China
<b>Personnel fort he port of Greenville</b>	The project executed in Liberia can be found in the GTZ knowledge management files	Liberia
<b>Support of the industrialisation by means</b>	The project can be found in the GTZ knowledge management	Various

<b>of integrated experts (CIM)</b>	files	
<b>Transport and infrastructure project</b>	The project executed in Costa Rica can be found in the GTZ knowledge management files	Costa Rica
<b>Consultancy the port of Assab and Massawa</b>	The project can be found in the GTZ knowledge management files	Eritrea
<b>Local study and role model tests in the port</b>	The project executed in Pakistan can be found in the GTZ knowledge management files	Pakistan
<b>Study on transport and marketing in the port of Aqaba</b>	The project executed in Jordania can be found in the GTZ knowledge management files	Jordania
<b>Commercial Port</b>	The project executed in Croatia can be found in the GTZ knowledge management files	Kroatien
<b>Logistic support of the Sea Ports Corporation, Port Sudan</b>	The project executed in the Sudan can be found in the GTZ knowledge management files	Sudan
<b>Up-gradation of the port in Conakry</b>	Study funds, Study to upgrade the port of Conakry, Guinea Can be found in the GTZ knowledge management files	Guinea
<b>Warehouse Management Conakry NGO</b>	Consultants fort he port of Conakry, Guinea	Guinea
<b>Consultancy to the Peruvian Customs</b>	The project executed in Peru can be found in the GTZ knowledge management files	Peru
<b>Consultancy to the Sea Ports Corporation (SPC)</b>	The project executed in Saudi-Arabia can be found in the GTZ knowledge management files	Saudi- Arabia
<b>Integrated consultancy of the economy in developing countries (IBD)</b>	The project executed in Costa Rica can be found in the GTZ knowledge management files	Costa Rica
<b>Consultancy to the port management</b>	The project executed in Guatemala Rica can be found in the GTZ knowledge management files	Guatemala
<b>Restructuring the port sector of Georgia</b>	The project executed in Georgia can be found in the GTZ knowledge management files	Georgia

## 1.10 Offers from similar GTZ projects

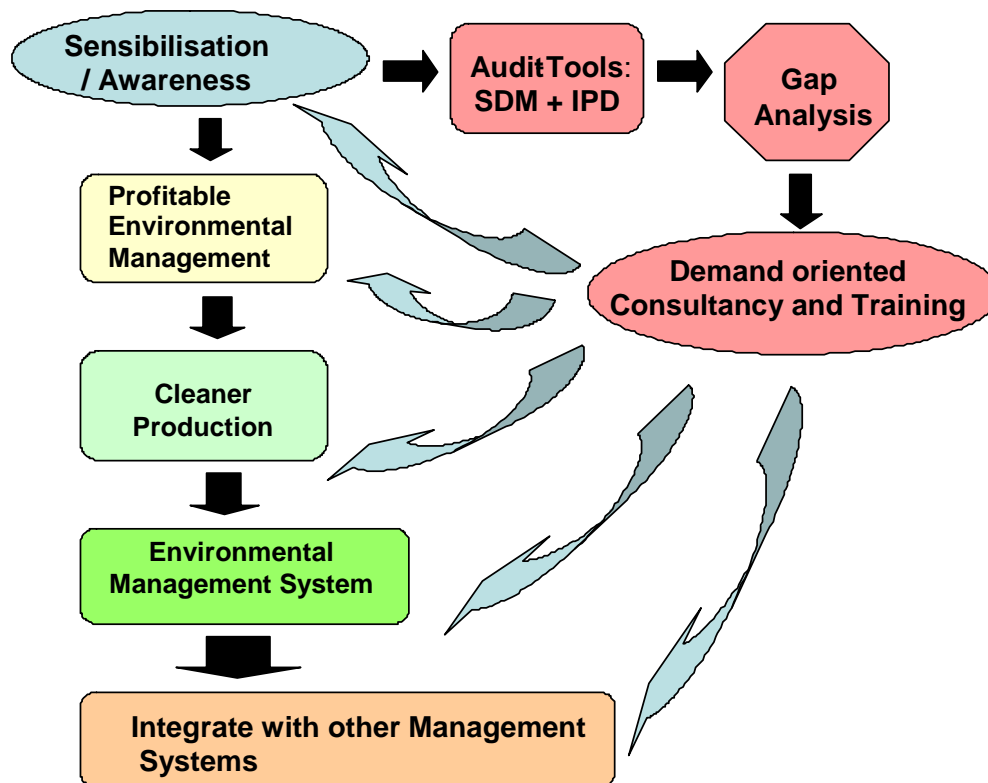
In order to ease the drafting of new offers, the following projects have been selected.

Project name and number	Region / Country	Project Budget
<b>Environmental Management in South American Ports</b>	The project executed in Latin America can be found in the GTZ knowledge management files	Budget: 1 329 359 EURO
<a href="#"><u>Dangerous Cargoes in ASEAN Ports</u></a>	The project executed in Costa Rica can be found in the GTZ knowledge management files	Budget: 372 600 EURO
Trainer Network TRAINMAR Latin America	The project executed in Latin America can be found in the GTZ knowledge management files	Budget: 2 607 589 EURO
<b>Implementation of a system for the safe transport and storage of Dangerous Cargoes</b> Thailand	The project executed in Thailand can be found in the GTZ knowledge management files	Budget: 2 556 459 EURO
Restructure of georgian ports Georgia	The project executed in Georgia can be found in the GTZ knowledge management files	Budget: 902 430 EURO
Logistical support of the Sea Ports Corporation, Port Sudan Sudan	The project executed in the Sudan can be found in the GTZ knowledge management files	Budget: 2 296 628 EURO
<b>Advisory to Shanghai Jungonglu Harbour Stevedoring Coportation (SJC)</b>	The project executed in China can be found in the GTZ knowledge management files	Budget: 4 525 000 EURO
<b>Improvement of maritime and inland waterways safety and institution Building in the field of maritime transport (TWINNING)</b>	The project under execution in Romania can be found in the GTZ knowledge management files	Budget: 585 697 EURO
<b>Environmental and Safety Management in the Black Sea Ports Romania</b>	The project under execution in Romania can be found in the GTZ knowledge management files	Budget 1 000 000 EURO
<a href="#"><u>Förderung des Hafens Constanza (1996.0090.9)</u></a> Romania	The project executed in Romania can be found in the GTZ knowledge management files	Budget 1 482 746 EURO

***In Europe we are at present focusing on Port Waste Management, in South America on Environment and Safety Management Systems and in Asia on the handling and storage of dangerous goods.***

## 1.11 Methods and Instruments

The dissimilar needs of port authorities, administrations and operators in different parts of the world with diverse ecological, social and economic conditions as well as distinct legal and institutional arrangements, require demand oriented approaches and tailor made solutions.



**Figure 1 – GTZ Consultancy Approach for the introduction of an Environmental Management System (EMS)**

Description (Beschreibung)	Comments (Kommentare)	Link / download / contact (Kontakt)
<b>Approach</b>	Approach on relatively new topics such as the environment and safety in ports	File: "Beratungsprozess Produkt 067 FS"
<b>Awareness</b>	Awareness creation among key stakeholders: port authorities, administrations and operators, suppliers, contract firms and dock workers, related institutions (like Marine and Environmental Authorities, Municipalities), influent NGO's and other surrounding actors. The awareness focus on necessary adjustment processes in a global economy and the economical benefits of	GTZ file: "Conceptos Ambientales" (Argentine)  ATAS Course on Environmental Management (Spanisch) : file : "ATAS Course on Environmental Management (Spanisch) Curso MA B4C4-MP 2001"

	<p>environment and safety management</p> <p>The GEF/UNDP/IMO Global Ballast Water Management Programme (GloBallast) is assisting developing countries to reduce the transfer of harmful aquatic organisms and pathogens in ships' ballast water and implement the IMO ballast water Guidelines creating awareness in the target countries.</p>	<p><a href="http://globallast.imo.org">http://globallast.imo.org</a></p>
<b>Auditing</b>	<p>Auditing the actual capacities of port authorities, administrations and operators in environmental and safety management issues, using existing and innovative tools, like the "Integrated Port Diagnosis" (IPD), recently created by the GTZ.</p> <p>Main goal of the Ecoports project are to harmonize the environmental management approach of ports in Europe, to exchange experiences and to implement best practices on port-related environmental issues.</p> <p>SDM Self-Diagnosis Method of Ecoports project</p>	<p>Example IPD: file: "IPD-S (5) Seguridad Original"</p> <p><a href="http://www.ecoports.com">http://www.ecoports.com</a></p> <p>and file: "SDM_Method Ecoports"</p>
<b>Gap and Needs Analysis</b>	<p>Thus, it is possible to identify which components are missing, have to be systematized or strengthened in the existing port management systems. Through international benchmarking the involved ports receive information about gaps between desired levels – state of the technique – and their actual levels of performance.</p>	<p>and file: "SDM_Method Ecoports"</p>
<b>Demand oriented advising and training</b>	<p>in order to strengthen the management capacities of port authorities, administrations and operators; from low level environmental measures like <i>Good Housekeeping</i> (GHK) to the implementation of <i>Integrated Management Systems</i> (IMS) that bundle quality, environmental and safety management in one integrated approach.</p>	<p><a href="http://www.atas-trainmar.net">http:// www.atas-trainmar.net</a></p> <p><a href="http://www.cennave.com.uy">http://www.cennave.com.uy</a></p> <p>File: "GHK-span-Hafen-listadechequeo-1103"</p> <p>File: "UK Guide to good practices in Port Operation"</p>



<b>Support of the relevant authorities</b>	Support of the relevant authorities within the implementation of international and national legislation, the standardization of procedures and the creation of co-ordination and collaboration instances.	File: "ESPO Environmental Review"  <a href="http://www.cennave.com.uy">http://www.cennave.com.uy</a>
<b>Dissemination</b>	Dissemination of successful approaches and good practices through a proactive information policy.	<a href="http://www.gtz-esmp.org">www.gtz-esmp.org</a>  <a href="http://www.gapas.com.uy">www.gapas.com.uy</a>  Chamber of commerce/GTZ Guide on Environmental themes with companies: File: "UWT MERCOSUR GUIA"

## 1.12 Product Modules / Knowledge and Procedures

What kind of standardized knowledge and procedures are available, to which one can recur in the implementation of a project or during the elaboration of proposals?

The product modules can be implemented in a flexible manner and the following knowledge is available and procedures approved:

- **Port Regulations:** Development or updating of port regulations, codes of practice, strategic action plans, guidelines and standards concerning waste management, environmental protection, safety of port and marine operations, handling and storage of dangerous goods, emergency procedures and contingency plans.
- **Port Management:** Development and organization of a effective port management, setting up of tariff systems, organization of the port, concessions to private operators, port privatization.
- **Coastal zone management:** The long term planning of port activities, expansion of port, site selection, Environmental Impact Assessments (EIAs), cooperation of the port with adjacent users of the coastal zones, integration of ports into national or regional zoning/planning concepts.
- **Introduction of Market-Based instruments (MBI)** to mobilize the economic self-interest of resource users and polluters for environmental policy purposes. Offering incentives to port users who operate in a particular and defined way, encouraging environmentally friendly activity.
- **Consultancy in Good Governance** for port and maritime authorities as well as transport ministries in order to review or formulate national laws, regulations and/or directives as well as guidelines.
- **Capacity and Institutional Development** for the enforcement and compliance with national and international legislation, regulations, directives, codes, standards, conventions and best practices with regard to: reception and waste treatment,

handling and storage of dangerous goods, as well as safety and health of port personnel.

- **Port Environmental and Safety Management Systems:** Development, implementation and operation of comprehensive Port Environmental and Safety Management Systems, which comply with ISO 9000:1994, 14001:1996 –viz. ISO 19011:2002 series, OSHAS 18001:1999 or other recognized standards.
- **Empower women in the private and public port sector:** Training, promotion of management skills for women. Promoting women for key positions in public and private organizations. Consult and Co-operate with female professionals in the area to create awareness among port managers in the themes of Port Environmental and Safety Management Systems ISO 14001:1996 and OSHAS 18001:1999.
- **Corporate Social Responsibility (CSR):** Implementation of ethical standards such as Corporate Social Responsibility in ports and their businesses. Continuing commitment to the core business, operating in a socially responsible way, complemented by investment in neighbouring communities for solid business case reasons. Introducing international standards to responsible care human resource development improving occupational safety and health conditions and quality of life.
- **Good Housekeeping Practices:** The implementation of Good Housekeeping (GHK) practices and profitable environmental management in public and private companies and organizations providing services and doing business in the port sector.
- **Consultancy** to define, design and/or choose the Best Available Technologies (BAT) for the adequate reception, storage, treatment and disposal facilities of ship and port-generated wastes and cargo residues.
- **Diagnostic tools for ports and terminals** to evaluate the institutional, organizational and legal framework, the status of the current environmental, safety security and emergency management systems, contingency planning, and training needs
- **Development of Port Waste Management Plans** in compliance with international conventions and EU directives, regulations and standards and facilitation of waste management systems and ensure internationally accepted final disposal procedures in cooperation with the adjacent communities.
- **Modular Training Courses and Programs** on environmental, safety and risk management as well as Standardized Training Packages (STP) based on the systems approach to training. Establishment of specialized training capacities in the fields of environmental management, occupational safety and health, corporate social responsibility, handling, transport and storage of dangerous goods and other relevant topics.
- **Identification of Risks and Hazards** of ports and terminals based on the experience with the Integrated Port Diagnosis Tools of the GTZ (Training, Safety, Security, Contingency, Good Housekeeping, Legal framework, Cooperation) and the Self Diagnosis Method SDM of the ECOPORTS foundation of European Ports (Environment), or other standardized methods and procedures.

- **Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA):** for port construction and development projects in line with EU regulations and guidelines.
- **Procedures and Instrument:** Elaboration and implementation of technical guides, contingency plans, procedures and systems for maritime casualties and oil pollution emergencies in port areas, in accordance with the international United Nations Program APELL (Awareness and Preparedness for Emergencies at Local Level) for Port Areas.

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