

PORTS NEWSLETTER N°16

November 1996

prepared by the UNCTAD secretariat

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EDITORIAL

At the recent UNCTAD Conference held in Midrand, South Africa, member States of UNCTAD recognized that transport is a crucial issue for the improvement of the efficiency of trade, and a Division for Services Infrastructure for Development and Trade Efficiency has been created. The Division will carry out analytical and practical activities that assist countries in their efforts to improve their transport infrastructure and enhance their competitiveness. A Transport Section has been established that will undertake research, training and technical cooperation work in this field, including ports.

The importance of ports for trade has been pointed out by the World Economic Forum. In effect it uses "port access" as one of the factors in ranking the competitiveness of national economies. The definition of port access is how efficiently goods and raw materials flow in and out of a country. The efficiency of ports based on this definition depends not only on the physical infrastructure of the port, but also the degree of governmental control over the flow through the port. Governmental control in some developing countries means manual checking of goods and documents to confirm appropriate payment of duties and taxes before the goods are allowed to enter or leave the country. This immediately forms a bottleneck to the flow of goods and it would be futile to upgrade port infrastructure if this bottleneck is not removed. Hence improving efficiency in ports must be done in tandem with streamlining of government controls and regulations on goods through the ports.

The World Bank in their 1995 "Global Economic Prospects" argued that globalization was underpinned by liberalization of economic policies and by technological advances that continue to facilitate transport and communication networks. In this year's report, they note that policy reforms designed to increase an economy's growth and stability are likely to influence a country's speed of integration both directly and through their effect on growth. Examples include policies that ensure macroeconomic stability and realistic exchange rates, and investments in telecommunications and transport infrastructure. Productivity and export diversification have been improved by commodity-reliant countries that followed policies to enhance their ability to invest and compete in international markets in primary commodities, and not just in manufacturing, notably by strengthening the private sector, encouraging foreign direct investment, promoting and application of research and technology, and developing physical infrastructure. Thus it is clear there is a close link between economic growth and the development of appropriate transport infrastructure.

Ports are an essential part of the nation's transport infrastructure and have a key role within integrated transport chains. Approximately two thirds of maritime shipping costs occur in ports and in some instances transport costs can outweigh the impact of tariffs. In addition to being the point for the transfer between two modes of transport, they are the point of entry into the customs territory of the importing country. Thus they are the point where Customs can be sure that landed cargo is "as landed". They are the only point where undocumented cargo can be detected and controlled through an accurate tally as it comes in the terminal. To facilitate the movement of goods, Customs need to have all relevant documentation before cargo arrives, to complete its selectivity decisions (which shipments to control) prior to discharge, to control selected cargo, to apply strict control to undocumented cargo and to promptly release all other import cargo from any form of Customs control. The inspection of selected cargo should be done at the first reasonable opportunity, thus inspection can take place at an Inland Clearance Depot or at the receiver's premises if the cargo can move under a secure Customs seal.

UNCTAD IX

A partnership for growth and development

The ninth quadrennial Conference (UNCTAD IX) was held in Midrand, South Africa, from 27 April to 11 May 1996. UNCTAD Conferences are the largest intergovernmental gathering designed to promote development through trade and international economic cooperation. They formulate major policy guidelines and decide the programme of work for the organization. Under the theme "Promoting growth and sustainable development in a globalizing and liberalizing world economy", UNCTAD IX brought together more than 2,500 participants from 135 member States, intergovernmental and non-governmental organizations. UNCTAD's mission is to ensure that international trade is a force for the durable development of all people and nations.

The member States agreed in their Midrand Declaration that it was in the interest of all countries that a mutually beneficial multilateral trading system continues to develop. Also further vigorous initiatives were necessary to promote development particularly in the least developed countries. UNCTAD's policy research and analytical work must facilitate policy formulation within member States. In particular, partnerships between the public and private sectors need to be strengthened to achieve higher growth rates and greater development.

The Conference decided that UNCTAD's primary role in the sector of services infrastructure for development and trade efficiency is to assist developing countries, particularly the least developed countries, and countries in transition, in generating trade-supporting services such as customs, transportation, banking and insurance, telecommunications or business information which are adapted to their particular requirements. Further, UNCTAD should review and assess progress with the trade efficiency initiative for which one of the components was transport.

UNCTAD should, in close cooperation with ECE, ITC and other relevant international organizations:

- (a) Continue to enhance the capacity of interested developing countries and economies in transition to trade efficiently through programmes such as ACIS, ASYCUDA, TRAINMAR, TRAINFORTRADE and the Global Trade Point Network;
- (b) Explore means to make these programmes financially self-sustainable;
- (c) Enhance the capacity of Trade Points to function as information and training centers for small and medium-sized enterprises.

UNCTAD's technical cooperation programme is an important element in UNCTAD's overall effort to focus its work on activities that provide practical assistance to developing countries. This assistance should be directed towards developing countries with the greatest need. LDCs should have priority in the assistance provided by UNCTAD. The effectiveness and impact of UNCTAD's technical cooperation should be strengthened as an essential complement to the institution's policy-oriented analytical and deliberative work. Specific needs of certain developing countries with structurally weak and vulnerable economies should be addressed. UNCTAD should continue to provide technical assistance to economies in transition. UNCTAD's technical cooperation should be demand-driven and aim to enhance the capacity of countries to promote their own development process. It should assist Governments to create the necessary enabling environment for development and strengthen the ability of beneficiary countries to participate fully in the world economy, particularly in international trade and investment. Donors are invited to continue and, if possible, increase financing for technical assistance programmes formulated by UNCTAD.

UNCTAD's technical cooperation programme should be determined by its work programme priorities. In the field of services, UNCTAD's technical cooperation should focus on the following areas:

- Supporting the formulation of national policies promoting and attracting foreign investment;
- Supporting the formulation of national policies promoting private sector development, including SMEs and privatization issues;
- Promoting public sector/private sector dialogue;
- Supporting formulation of national policies promoting services infrastructure for development and trade efficiency;
- Improving trade-supporting services facilitating trade and exports;
- Human resource development;
- Follow-up on the results of the UN International Symposium on Trade Efficiency and providing technical assistance such as establishing trade points, particularly in LDCs.

SOCIAL AND LABOUR PROBLEMS CAUSED BY STRUCTURAL ADJUSTMENTS IN PORTS **International Labour Organization**

A tripartite meeting was held at ILO's headquarters in Geneva from 20-24 May to discuss the effects of technological change, deregulation, commercialization and privatization on port labour. To increase the dissemination of the results of this meeting to the international port community the main conclusions of the meeting are reproduced below.

More private sector involvement and the integration of transport systems in an increasingly competitive and global transport sector have caused continuing and far-reaching changes in the port industry. One of the focuses of these changes has been the introduction of capital-intensive cargo-handling techniques to obtain improvement in port operations. Dialogue between governments and employers and workers' representatives in the port industry is a prerequisite for effectively identifying and managing the required changes.

Port reform is a continual process that takes place at different rates and from different starting points according to circumstances. There is, therefore, no standard formula for port restructuring that can be universally applied; a transparent approach is required. Port reform should, none the less, be undertaken in the context of economic and social development, and implemented as an integral component of overall transport policy and a national ports policy, where applicable. Special attention should be paid to the economic and social impact of reform on the port, its workers and users.

Governments should assume responsibility for providing the legal framework and economic policies that enable reforms to be put in place and maintained. National policy should encourage cooperation between port employer and workers' representatives and freedom of association and the right to collective bargaining according to national law and practice which are consistent with international labour standards. In order to define their respective roles, identify the appropriate reform measures and the means for their implementation, exchanges of information and cooperation between employers and workers' representatives should precede the initial stages of reform and should be ongoing. Employers and workers' representatives should periodically review the reforms undertaken and cooperate in developing any measures that might be required.

The establishment of sound labour-management relations, based on mutual trust and confidence between

employers and workers' representatives, is important in reconciling and promoting the interests of the industry and in enabling productivity improvements. Within the enabling framework provided by government, employers and workers' representatives should establish and maintain a dialogue to discuss industrial and social issues and strive to reconcile any differences between them. An early objective of this dialogue should be to establish guidelines to be followed in introducing a port reform programme. These guidelines should provide for the establishment of constructive labour-management relations with a view to ensuring that there is no overall deterioration in working conditions of port workers, and that the efficiency and effectiveness of port operations are improved.

Structural adjustment programmes in ports have led to reductions in the workforce. However, as a result of increased productivity, security of employment for those remaining port workers has, in many cases, improved. The level of employment following port reform should always be sufficient to guarantee the provision of port services in a safe and timely manner. Employment policies and practices should be structured so that employers and workers' representatives can develop and agree adequate provision for port workers who have to change their skills, their jobs, or leave the industry. Relevant national legislation, international labour standards and collective agreements should be taken into consideration by employers and workers' representatives as the basis for reaching agreement on appropriate courses of action. Governments should meet their obligations regarding international standards concerning employment and be ready, if requested, to assist employers and workers' representatives in reaching a satisfactory agreement.

Where reductions in the workforce are necessary, priority should be given to alternative job opportunities, within the industry and outside, and/or adequate redundancy payments. In the case of future vacancies, priority should be given to the redundant workforce. Employers should engage in a dialogue with workers' representatives according to national law and practice before developing policies and programmes to address employment issues arising from port reforms.

Since structural adjustment in ports inevitably affects the working conditions of port workers, the importance of early dialogue between employers and workers' representatives on the impact of change cannot be overstated. The development and introduction of new work methods should be discussed by employers and workers' representatives with the objective of mitigating any negative effects, particularly any arising from more flexible working. When the use of casual labour is inevitable, employment conditions should be formulated and agreed between employers and workers' representatives.

The importance of maintaining occupational safety and health standards is such that, even where labour markets have been deregulated, governments should ensure that safety and health regulations are in place and that they are enforced effectively by a competent authority. Employers and workers' representatives should ensure that the flexibility of work organization and work methods that may be required is implemented in accordance with national law and practice, and pay due regard to the desirability of maintaining workers' rights.

A well-trained workforce is essential for efficient port operations. The objectives of training should be to provide port workers with skills necessary for the safe and efficient performance of their work. Training needs at all levels, particularly in times of change, should be addressed on a consultative basis. Consideration should be given to providing vocational training at no cost to the employees; it should be carried out at port training centers.

Governments, in consultation with employers and workers' representatives, should facilitate the development and introduction of appropriate training standards and provide for the certification of trainers and trainees. Compliance with such standards should be monitored and enforced. Where appropriate, joint training boards responsible for establishing training standards and curricula and for supervising the quality of training should be set up and facilities for port worker training should be provided. Workers should be given every opportunity to undertake necessary training.

PORT LITERATURE

This section provides information on port literature coming from different sources. Requests for information on articles or studies presented in this section should be addressed directly to their authors or publishers.

Environmental aspects of dredging: Players, processes and perspectives

This is the first guide published by the International Association of Dredging Companies (IADC) and presents a systematic approach to the decision-making process of environmental dredging. It covers who is involved in the decision to dredge, and how and why a decision is reached. Environmental effects of the dredging activity may include alterations to coastal or river morphology (addition or reduction of wildlife habitat); alterations to water currents and wave climates; reduction or improvement of water quality; improvement of employment conditions owing to industrial development; and removal of polluted materials and their relocation to safe, contained areas. The publication presents a basic framework for a systematic approach to the environmental aspects of dredging. The first chapter looks at the areas of interest from a rather abstract point of view and introduces the concept of a systematic approach with which to deal with the complexities. In the next chapter the life cycle of a problem is the main focus, whilst some of the more prominent players (politician, activist, financier, standards institute, consultant and owner) and their field of play are introduced. The final chapter systematically orients the key players with the various phases of a problem's life cycle using remedial dredging as a specific example to show the step-by-step approach that should be applied.

International Association of Dredging Companies (IADC); Duinweg 21, 2585 JV The Hague; Fax +31 70 351 2654.

Port Information on the Internet

The major container shipping lines now have sites on the Internet which will allow shippers and freight forwarders to check schedules, to make cargo bookings and even to trace the location of their shipment. Looking at some of the services, the extensive use of feeder services becomes apparent and with this the great importance of maintaining the scheduled turnaround time in each port. For example a ship coming up the west coast of Africa must maintain its schedule through all its ports of call if it is to reach Algeciras in time for transshipment to vessels going to North America or Asia. If there are delays in one or two ports, all shippers from the range will be penalized as their cargo will be late in reaching their markets.

Three sites to visit that show how the Internet can be used to facilitate transport arrangements are:

www.apl.com	American President Lines
www.maerskline.com	Maersk Line
www.sealand.com	Sea-Land Services Inc.

Another service offering valuable information on international trade and freight information resources is WWShipNet (www.wwship.com) which through its Industry Resources leads to Transportation Resources and then to Container Shipping Schedule (www.shipguide.com). This gives access to the *Electronic Shipping Guide* (ESG) which is a database of over 60 carriers for voyages in and out of the U.S. and Canada. Schedules are obtained directly from the carriers and the database is maintained and verified on an ongoing basis to assure accuracy. Trade lanes include Asia & Australia; Africa; and South America & the Caribbean to/from North America.

Port information sources on the Internet are growing so fast that it becomes difficult to keep up to date. Sites

that act as indexes to ports are as follows:

www.mglobal.com
www.seaportsinfo.com/portmenu.html
www.gens.no/ports
www.ichca.org.uk
www.wmu.se
www.worldnet.net/~aivp

Maritime Global Net
Seaports of the Americas
World Ports
International Cargo Handling Coordination Association
World Maritime University
International Association Cities and Ports
..... www.dot.gov.au/programs/btcehome.htm
Bureau of Transport & Communications Economics

(Aus)

Please note that UNCTAD's website URL has changed and is now www.unicc.org/unctad.

Port Legislation

A number of articles on ports have been received from the Secretary General of LEGIPORT. With regard to the contribution of ports to trade efficiency, the LEGIPORT Association advocates a specificity of the legislation on ports to better reflect the interests of the port authority and operators in improving conditions to conduct operations, management and administration of ports. These articles - written in French - are mainly based on the French experience, in particular recent reforms which aim to give greater autonomy to the ports, and the European legislation.

Port reform: towards reason and efficiency, Journal de la Marine Marchande, 10 May 1996, pp. 1183-1187; *Port law: an increasing role*, Le Droit Maritime Français, Dec. 1995, pp. 939-950; *The concept of public service in port activities: pros and cons*, Seminar proceedings, Dunkerque, 16 and 17 May 1995; *Arrest of ships in ports*, Journal de la Marine Marchande, 19 Jan. 96, pp. 124-127, and Seminar proceedings, Paris 14 Nov. 1995.

For further information, please contact, Mr. Rezenthel, Secretary General of LEGIPORT, Port Authority of Dunkerque, Terre-plein Guillain, BP 6534, 59386 Dunkerque Cedex 1, France. Fax: + 33 328 29 71 06.

Port Privatisation: Process, players and progress

This comprehensive special Cargo Systems report prepared by Sidney Cass details the issues surrounding port privatization and provides information needed to draw conclusions from recent privatization experiences. The report investigates the reasons behind a government's decision to privatize ports, what privatization actually means in different countries and ways in which port authorities can approach the critical problem of funding. It also includes a section on ports and stevedoring companies interested in developing overseas partnerships and port operations. In analyzing the current situation of port privatization worldwide, it presents the opportunities and disadvantages of privatization from the different view points of ports and terminal operators, government authorities, shipping lines, financiers, investors and management consultants. This report offers an excellent insight into a trend set to dominate the port industry.

IIR Publications Ltd., 29 Bressenden Place, London SW1E 5DR, Fax+44 171 931 0516.

Port terminal security

Security is a major concern of port authorities. Thefts and smuggling of cargo, and stowaways are

occurrences that port authorities need to fight to assure the quality of their services. The costs incurred by port users because of these activities are very high as shown by various recent analysis. For instance, in the United States of America, it is estimated that the annual cost of thefts of cargo amounts to US\$3 to 10 billions a year. In South Africa, the costs are estimated at US\$2.6 billion a year. The port of Le Havre (France) has recently decided to tackle this issue and to improve the security of its port terminals. The article describes the various steps taken: better control of access to the terminals premises, including personnel access; fencing of the terminal; automatic monitoring system; regular checks; detection of carbon dioxide in containers to prevent stowaways; severe system of sanctions to deter theft. Particular attention has been devoted to the most exposed areas such as those shipping lines with a history of stowaways and access to the port. As security requires a permanent effort, the port authority of Le Havre relies on the continual cooperation of port operators and users to improve the security measures.

Port Alliance, CCI, Quai George V, 76600 Le Havre, France. Fax: +33 232 74 73 08

Reform and structural adjustment in the world's ports: The future for labour and the unions

This report has been prepared from the results of a questionnaire sent to International Transport Workers' Federation affiliates in 1994 in connection with the ILO tripartite conference on structural adjustments in the port industry. In addition to analyzing the questionnaire, the report is an important policy document.

The study shows that the vast majority of port workers in the world have experienced some form of restructuring which has had a negative impact on employment. It also reveals that in spite of port workers being well organized, casual employment is still widespread. Experience has shown that the participation of workers' representatives in the decision-making process of restructuring mitigates the negative effects for workers. In order for reform to succeed there must be some form of income guarantee or the prospect of future alternative employment.

The world's ports are currently at a critical historical junction, with many countries questioning the balance between public and private sectors in the industry. Priority has been given to short term profits and operational requirements of shipping lines, resulting in social questions often being overlooked or denigrated. Change should be equated with improvement for the industry and its workers. Important conditions to the ITF for accepting reforms are that there are no compulsory redundancies and voluntary redundancy will be facilitated through retraining and redeployment schemes or early retirement schemes that are jointly funded by the employer and the state.

The report also contains useful information in two of the annexes. Annex III is a survey on the training provisions in the world ports based on data collected in 1992 and 1993 from port workers' unions in 32 countries. Annex IV lists recent privatization initiatives that have taken place in many of the world's ports.

International Transport Workers' Federation (ITF); 133-135 Great Suffolk Street, London SE1 1PD; Fax +44 171 357 7871.

The Structural Design of Heavy Duty Pavements for Ports and Other Industries

In June 1996 the 3rd edition of the above British Ports Association (BPA) Manual was published by the British Precast Concrete Federation Ltd., incorporating a radically new way of analyzing pavements. The Manual can be used to design all common types of pavements serving ports and similar cargo handling facilities. A particular feature is an improved design procedure for container stacking areas. The UNCTAD Monograph No 5 and its supplement entitled Container Terminal Pavement Management refer to the previous editions of the British Ports Manual. Chapter III of the 1987 Monograph is based on the first edition

and chapter IV in the 1990 supplement is based on the revised second edition of the Manual.

The new edition of the BPA Manual differs from the previous two in several respects and the users of the Monograph are therefore advised to refer to the new Manual, rather than following the design chapters of the Monograph. The first and most obvious difference is that the design process has been simplified so that only one chart has to be used to determine the thickness of pavement construction materials. This has been made possible through Material Conversion Factors that allow engineers to use a single design chart and swap the thickness produced by the chart for thickness of alternative materials.

The second major difference is that the new edition is based upon finite element analysis rather than multi-layer elastic analysis. The new edition includes an appendix which shows patterns of stress that develop in pavements when subject to loads of container handling equipment or by container corner castings.

The new Manual also has an expanded section on the specification of pavement construction materials and gives detailed advice on the strength and other properties required for both cement and bitumen bound materials, as well as for granular sub-base and for surfacing materials. For the design of areas subjected to container stacking loads, a design curve for container stacking has been included on one design chart. Users will find the new manual easier to use and in some cases the pavement required will be between 5 to 10 per cent thinner than second edition pavements, resulting in more cost effective solutions.

Interpave, 60 Charles Street, Leicester LE1 1FB, U.K., Fax+44 116 251 4568.

World Investment Report 1996 Investment, Trade and International Policy Arrangements

In response to technological and competitive pressures, companies from every developed country, as well as from an increasing number of developing countries, are becoming more active globally. The foreign affiliates of these transnational corporations (TNCs) are now generating annual sales well in excess of US\$6 trillion. Foreign direct investment (FDI) -- investment involving management control of a resident entity in one economy by an enterprise resident in another economy -- by TNCs soared by 40 per cent in 1995, and the tempo appears to be continuing this year, according to the World Investment Report 1996 published by UNCTAD. In addition to a detailed analysis of FDI trends, the report provides a review of bilateral and regional investment agreements, initiatives at the multilateral level, and the evolution of international FDI policies. Particular attention is given in the Report to the deepening linkages between trade and FDI, and the costs and benefits of the rapid intensification of business globalization.

Total FDI flows into developed and developing countries surged to reach US\$315 billion. US\$100 billion of this volume went into developing countries, a gain of 15 per cent on 1994, and China alone took in over US\$38 billion. FDI has become the single largest item in net private capital flows to developing countries, accounting for 54 per cent of the total. Today's data show that FDI distribution is uneven, and many developing countries currently obtain very little FDI and are not, as yet, a significant part of TNC global and regional growth strategies. In a regional analysis the Report notes that 65 per cent of all FDI to developing countries went to Asia, with 52 per cent of this going to five countries (China, Indonesia, Malaysia, Philippines and Thailand). About 27 per cent went to Latin America, with two-thirds of this accounted for by just four countries, Mexico, Brazil, Argentina and Chile. Over the past couple of years, annual FDI flows to Africa have been around US\$5 billion only. Privatizations and economic recovery are now starting to encourage FDI into Central and Eastern Europe, with a total inflow level in 1995 of US\$12.8 billion. Although FDI to the 48 least developed countries rose 29 per cent in 1995, it only amounted to US\$1.1 billion.

The rapid increases in FDI are accompanied by new, more complex, relationships between world trade and investment which in turn are leading to more and more international negotiations on investment. UNCTAD

contributes to this process by providing research on key investment issues; tracking the growing array of negotiations on behalf of its member countries; and assisting developing countries to prepare for the complexities and the challenges that these negotiations can involve.

Something new is happening in the dynamics between trade and investment. Whereas, historically, manufacturing firms have traded with foreign enterprises and buyers before directly investing (thus trade preceding international investment), now the trade-investment relationship has become more complex. Over the past decade, the environment for FDI and trade has changed in major respects: physical, technological and policy-related barriers have been reduced on the movement of goods, services, capital and firms. At the same time, new technologies have greatly enhanced the ease with which goods, services, intangible assets and people can be transported, and tasks related to the organization and management of firms implemented over great distances.

These changes have contributed to growth in international production and firms can choose how to serve foreign markets: by producing at home and exporting, by producing in a foreign country for local sale, or by producing in a foreign country for export. These international production systems are creating new global economic structures, adding to the transfer of goods, services and knowledge between corporations across national borders, and accelerating international business competition. Any international investment agreements involving developing and developed countries must take into account the special importance of development policies and objectives. Clearly FDI and the related increase in trade must be incorporated into the national transport plan for infrastructure and services.

United Nations Sales Section, Palais de Nations, 1211 Geneva 10, Fax +41 22 917 0027.

TECHNICAL NOTE

Infrastructure funds for financing port development projects

The following note is based on presentations made by investors and development bank staff at the recent AsiaPorts Summit held in Hong Kong. Certainly this region is the one in the world with the greatest investment needs in order to develop infrastructure to support trade. In order to upgrade and develop transport infrastructure in most developing countries it will be essential to attract private sector investments. Appropriate changes in legislation are required that establish a legal environment inspiring confidence in fair business deals. Foreign direct investment is being promoted through liberalization: reducing restrictive investment measures; strengthening standards of treatment of foreign investments; providing investment protection and ensuring the proper functioning of the market. See also UNCTAD's *World Investment Report 1996* and *Financing port development* (UNCTAD/SDD/PORT/4).

One method of obtaining additional investment capital is through international funds. For example, the Asian Development Bank has invested (US\$20 million) in the US\$1.1 billion Asian Infrastructure Fund (AIF). This fund, sponsored by Peregrine Investment Holding Ltd of Hong Kong is a closed end fund with a life of ten years which may be extended for an additional four years. The joint venture container terminal project in Xiamen port in China with a cost of \$50 million was partially financed through the AIF.

The Fund was established in February 1994 and the Singapore Government was one of the partners. The fund's target countries are China, Indonesia, Malaysia, Philippines, Taiwan (Province of China) and Thailand. The sectors of interest are transport, telecommunications, power and water treatment. The Fund limits its ownership to 40 per cent and prefers to exit via a public sale of its shares. To date its major investments are in roads (\$259 million), telecommunications (\$247 million), power (\$134 million) and ports and aviation (\$37 million). Key issues for investing in port projects are that the port has a strong market position, has freedom in setting prices, has a profitable operation and generates foreign exchange revenues. The main risks are construction delays and cost overruns, default by operator, strikes, uncertainty of traffic projections, tariff

restrictions, exchange rates, repatriation of profits and sale of assets. Also port projects have a cash flow profile that can cause hesitation to investors. There is a large up-front expenditure for the design, construction and equipment, government fees and other related infrastructure (road or rail links). Further there are often long lead times to reach stabilized and profitable utilization. There will always be uncertainty of future throughput volumes and uncertainty of tariffs and charges.

A key issue for an infrastructure fund to invest is to have a strong technical partner associated with the project with expertise in operations and marketing. For example, for funding the development of a container terminal in Dalian (China), the Port of Singapore Authority was one of the partners. Also for this project, risks were reduced as the infrastructure already existed and the facility would be the only container terminal operating in the port. When strong technical and financial partnerships have been found, port projects have been an attractive investment for the AIF.

Investment funds are seeking an expected return for their investor's capital that is related to the degree of risk. Senior debt (equivalent to the first mortgage on a house) has the lowest risk and investors are expecting returns of 9-11 per cent. Equity financing which exposes investors to the highest risk will typically be offering investors returns of 20-25 per cent. Another source of capital is mezzanine capital which is a financial layer between senior debt and equity. It offers greater security than equity (like a second mortgage, secondary lien), can offer grace periods, long average life, long final maturity and can be synchronized with projected cash flows. Typical expected returns would be from 14 to 20 per cent. Infrastructure port projects could obtain funding from these three sources. In general with the restraints on pricing, the expected rates of annual return given to attract investors are probably optimistic, however funding port infrastructure, given the projections for continuing growth in trade, would appear to be a sound long-term investment.

RECENT UNCTAD PORTS STUDIES

Strategies for sustainable development of cities and ports (UNCTAD/SHIP/494(14))

This latest Monograph on Port Management has been prepared by Messrs. M. A. Pesquera and J.R. Ruiz from the Port Authority of Santander (Spain). This is the 14th monograph of the series on subjects of interest to port management prepared in collaboration with IAPH and for this monograph UNCTAD also benefited from the collaboration of the International Association Cities and Ports. This monograph reviews the relationship between cities and ports through the centuries and highlights the major factors that may lead to their harmonious development. It takes sustainable development, namely the ability to satisfy the current needs without endangering the satisfaction of needs of future generations, as an objective.

The monograph starts by reviewing the features of cities and ports in the pre-industrial era, at the time of an embryonic distribution system of goods and in which the life and activities of ports could hardly be disassociated from those of their cities. It then considers the effects of the commercial revolution of the XVI century and the more lasting impact of the industrial revolution two centuries later. This latter revolution led to a splitting of the activities of cities and ports. The physical enclosure of docks to separate them from the city started last century and became impressive as the large premises of industrial ports now show. Similarly, an organizational split resulted in the running of cities and ports by different bodies. The split has social and cultural elements as well. The change from the pre-industrial era to the industrial one meant the phasing out of some ports while others, which could seize the opportunities, prospered. With the advent of the post-industrial era, ports and cities are in a similar situation and have to look at the changing environment and devise strategies to adapt. Their survival is at stake.

The monograph identifies geographical location, trade and technology as the main factors to consider. It reviews some features in today's ports, namely becoming a logistics center in the new international distribution networks, setting up trade centers, establishing worldwide on-line communications, making their

organization more flexible, having a new approach to port work, showing concern for environmental issues, etc. It suggests that cities and ports prepare strategies for their sustainable development that balance the three main objectives to maintain the environment, economic efficiency and quality of life. Although the examples provided come from cities and ports located on the Atlantic coast of Western Europe they convey a clear message for other regions of the world.

Survey of Container Handling Equipment Costs

Earlier this year the secretariat contacted a number of manufacturers to obtain information on the 1996 prices of different types of container handling equipment. This information updates those figures given in the report *Operating and Maintenance Features of Container Handling Systems*. These prices should be taken as representative prices only as specifications and delivery point will affect the final erected price.

QUAY CRANES	Outreach (m)	Maximum Lift (t)	Handling Rate	Erection Cost	Transport Cost	Cost (\$US 000)
	25	40	18-24 box/hr	10%	3%	5,000
	40	40	30-36 box/hr	10%	3%	6,000
	45	50	60 box/hr	10%	3%	7,000
MOBILE CRANES	Outreach (m)	Maximum Lift (t)	Hoisting height	Erection Cost (\$)	Transport Cost	Cost (\$US 000)
	25-40	45-63	30	110,000	3%	3,000-4,000
RUBBER TYRED GANTRY CRANE	Span (m)	Maximum Lift (t)	Lift Height	Erection Cost	Transport Cost	Cost (\$US 000)
	20-24	40	1 over 3	10%	3%	1,500
	20-24	40	1 over 4	10%	3%	1,700
	23-27	40	1 over 5	10%	3%	2,500
	24	40	1 over 6	10%	3%	2,000
RAIL MOUNTED GANTRY CRANE	Span (m)	Maximum Lift (t)	Lift Height	Erection Cost	Transport Cost	Cost (\$US 000)
	30-50	40	1 over 4	10%	3%	2,000
	30-50	40	1 over 5	10%	3%	3,000
		Maximum Lift (t)	Lift Height	Erection Cost (\$)	Transport Cost (\$)	Cost (\$US 000)
		40	1 over 2	34,000	23,000	740
		40	1 over 3	34,000	23,000	840
		40	1 over 4	34,000	23,000	890
		9	1 over 4	-	10%	200
		9	1 over 5	-	10%	220
FRONT END LOADERS		16	1 over 3	-	10%	150
		25	1 over 2	-	10%	200
		36-40	1 over 4	-	10%	310
		44-48	1 over 5	-	10%	340
REACH STACKERS		40	1 over 4	-	10%	350
		45	1 over 5	-	10%	370
TERMINAL TRACTORS					Transport Cost	Cost (\$US 000)
					10%	90-130
TERMINAL TRAILERS (40')			Axle Type	Load Capacity	Transport Cost	Cost (\$US 000)
			Single	45	10%	15
			Double	50	10%	18
			Double	65	10%	20

For Forklift Trucks used for stripping and stuffing containers, typical prices were \$US 25,000 for up to 2 ton capacity, \$US50,000 for 3 to 5 ton capacity and \$US100,000 for 7 to 15 ton capacity. Transport costs would be approximately 10 per cent of the purchase price. The above figures can be used for making initial cost estimates of equipment funding requirements.

REHABILITATION PROGRAMME FOR SOMALI PORTS

An update

Activities in these two projects funded by UNDP and the European Union are now concentrated in Bosasso and Berbera. The situation in these two ports is now more stable and training centers have been set up and equipped to conduct training on basic skills needed to run the ports. Two expatriates (one of which is a UN Volunteer), are posted in each port. They provide advice on operational and administrative matters to the local officials. In Bosasso, and following a recommendation made by the project, the regional administration requested expertise to advise on tax collection. An official from HM Customs and Excise undertook an assignment in August 1996. The implementation of his recommendations will make the rehabilitation effort more rational by separating the functions of the port authority from those of the regional administration. Also, the rehabilitation of buildings for the regional administration will be undertaken in the near future by the project.

An internal evaluation of the project funded by UNDP was conducted in August 1996 chaired by the new Resident Representative of this UN organization, Mr. Langenbacher. It was agreed that the positive developments in the north of the country should continue to be supported and therefore the decision to extend the current project until end of next year was made.

THE FUNDAMENTAL ROLE OF PORTS IN WORLD HISTORY

André Merck - (Second part)

This article is the second part of a two part series of a condensed presentation given by the French historian, André Merck, at the international colloque organized the 16 - 17 May 1995 by the Port Authority of Dunkirk on the theme, "The economic and strategic importance of maritime ports".

The port City States of medieval Italy

In the Italian part of the German Holy Roman Empire, the political division was complex. Powerful port cities existed, such as Venice, Genoa, Florence and Pisa, as well as the kingdoms of Naples and Milan without forgetting the Papal States, that were similar to states with their own army and navy.

There was a continuous war between the Guelphic partisans of the Pope and the Ghibellines, who were supported by the German Emperor. During this period money was king and commerce flourished. All kinds of goods, including rare products from the Orient, were transported on board galleys and barges that had been constructed in the arsenals of these rich cities which were continually attempting to eliminate one another militarily with their navies and troops.

In 1284, Pisa was first beaten by Genoa, then captured by Florence. Venice crushed Genoa and its Mediterranean empire at the end of the 14th century. However, nothing could stop the Genoese, who were the inventors of double-entry book keeping and maritime insurance. They traded in the Black Sea but also in Rouen and Brugge passing through the strait of Gibraltar.

When Venice was at its summit, it had 3,500 vessels, 35,000 sailors and 16,000 workers in its naval yards. Its citizens ignored the excommunications from the Pope who reproached them for "making money" with the Infidels. Venice had only one motto: "Veneziani poi Cristiani": Venicians first, Christians next. In this city permeated with Islam, even in its architecture, the Muslims felt at home. The Venicians were their privileged commercial intermediaries and their warehouses were full of everything the Orient produced and which were desired by the Occident: spices, silks and precious metals.

Venice was the "Serene". The Pope yielded before the blasphemous Republic that invented bankers, and money changers. But in this "Quattrocento (fourteenth century)" where wealth, luxury and art went together, ideas and thinking evolved and many humanists, as well as businessmen and leaders, found their world too narrow but for different reasons.

The race to the new world

In the Middle-Ages the Atlantic Ocean was feared. One travelled along its edge but did not cross it. The Church suspiciously feared that the ignorant masses would lose their faith if there was an uncontrolled diffusion of knowledge. The masses should only learn what the Church taught them. Venturing in the torrid oceans, ships would be swallowed up in midst of monsters and malefic beings. This would be the sanction for man, for his sin of pride!

However the revelations of knowledge were finally extended thanks mainly to the progress in printing. Many then learned what had been formulated long ago by the Greeks, Eratosthenes and Ptolemy in the fields of mathematics, astronomy and geography.

Progress in naval construction and in new navigational instruments made the Genoese and Portuguese great adventurers on the high seas. Dias passed the Cape of Good Hope in 1488 and Calicut the famous port on the Malabar coast was discovered. The new route to the Indies, source of Oriental riches, had finally been opened to all. This was necessary to bypass the Turks, who were the masters of the Mediterranean after the fall of Constantinople.

Christopher Columbus defied the Atlantic, convinced by what he believed he had discovered in his texts. He arrived in the Antilles in 1492 believing that he had landed in the Indies, or at least in China or in Japan and could not be persuaded otherwise. The islands that were discovered are still called the "West Indies". Columbus did not know that the Pacific Ocean was on the other side of this new continent and Balboa would only discover it twenty years later.

By 1520, the Europeans knew the entire world. In time they would establish all the present ports in Canada, the United States and Latin America, from Montreal to Buenos Aires passing by Rio. In their turn, the Portuguese, Spaniards and other western countries influenced ports in the oriental world where for dozens of centuries, Romans, Greeks, Arabs, Indians and Chinese each had had their control. The prosperous Dutch, English and French "East Indies" trading companies, were established in the period from 1600 to 1664, using troops and forts for their port trading posts. It was the beginning of the great merchant voyages that departed from Calcutta, Bombay, Colombo and Pondichery to Europe during the next century. France quickly faded from the oriental landscape, while England and the Netherlands stayed there until just after 1945. Europe also turned towards the Americas, initially from Seville, Cadiz and Lisbon, then from the French ports of Bordeaux, Nantes, Le Havre, Dunkirk and the English ports of London and Liverpool.

To the "colonial" traffic was unfortunately added "the ebony trade", a triangular traffic, with western Africa providing an unlimited supply of slaves for the New World. In the 18th century, Bordeaux was involved in this trade, the second European port after London. In 1775, Nantes had one hundred ship owners in the slave trade with some 2,500 ships and barges. Michel Mourre indicated that around two million Africans were transported between 1680 and 1780. At the dawn of the French revolution, France annually sent 20,000

slaves across the Atlantic, while England, with Liverpool as its main port, sent 30,000 and Portugal 10,000 of these unfortunate beings.

Dunkirk, suffered from stagnation during most of the 18th century in spite of the lucrative revenue from piracy, even if it was less than in the previous century. The traffic that was recovering at the beginning of France's Revolution, collapsed until the end of the Empire. Growth finally returned with the industrial revolution of the 19th century. After the clippers with their fine hulls of the middle of the 19th century, came the steel hulled ships which became faster and faster, with steam and then Diesel propulsion.

Conclusion

The specialized contemporary press, known to all port professionals, keeps us well informed of the progress in naval construction and the modernization of ports, with the exception of those that the caprice of geography have transformed into land-locked cities like Rye or Montreuil-sur-Mer and we can thus end this historic review.

In the evolving maritime field, the flow of spices and other exotic products have been replaced by the pungent smell of crude oil and its by-products. Imagine how development would have been if our countries had been confined by their borders. In a world with a constant need for goods and commodities, how could nations handle heavy goods and liquids in bulk without ports.

Towards the end of the second World War, the Allies constructed a port out of prefabricated sections. This project known as "Operation Overlord" was to provide a mobile port for the invasion of France. We are convinced that ports still have a bright future and that the ships of all types will benefit from technical and scientific progress and will continue to call for a long time.

UNCTAD'S TRAINING ACTIVITIES

UNCTAD/Port of Ghent Seminar on the New Commercial Role of Ports and Port Marketing

This fifth seminar, which was scheduled to take place in English from 30 September - 18 October 1996 was postponed probably until the autumn of 1997 at the request of the Belgian Administration for Development Cooperation, the funding agency.

Advanced port management: modern principles and methods

12 - 23 May 1997 (tentative date)

The Institut Portuaire du Havre (IPER) is organizing this seminar in association with UNCTAD. With the rapidly changing environment, port managers are looking for new and better management techniques to help them develop strategic business plans. This seminar offers participants the possibility to review today's port industry, consider the implications of present trends on their ports and select the management concepts and methods that will assist them in efficiently running their organizations in the early 21st century. Three major topics will be discussed: strategic port management and available tools to implement the main concepts; the issue of private sector involvement and the reasons for its growing significance; and the nature of port competition and the available strategies to survive and prosper. The seminar will take place in Le Havre and for more information contact IPER at Fax +33 35 41 25 79.

MISCELLANEOUS: COOPERATION, COURSES, CONFERENCES

CHINA-HOLLAND ECONOMIC RESEARCH CENTER (CHERC)

The center was created this year following over ten years of cooperation between the Shanghai Maritime University (SMU) and the Erasmus University Rotterdam (EUR). CHERC is constituted to promote and enhance the economic and cultural exchange between China and the Netherlands by means of co-operative research. This research aims to advise and assist Dutch as well as Chinese companies and institutions that want to do business in either country. Support for CHERC comes from the Rotterdam Port Authority, the Royal Nedlloyd Group and the Shanghai Port Authority. The center offers services to all commercial, institutional and governmental parties that are, or plan to be involved in the trade between China and the Netherlands (Europe). The research services offered will be of great interest for Chinese companies interested in the European market.

CHERC Shanghai Maritime University; Fax: +86 21 5885 3909 and CHERC Erasmus University Rotterdam; Fax: +3110 452 7881.

INSTITUTE OF TRANSPORT AND MARITIME MANAGEMENT ANTWERP (ITMMA)

The first academic year of this post-graduate training in the field of maritime transport started in October and successful completion will lead to a masters degree in Transport and Maritime Management. The programme is made up of seven core courses to which students can choose from ten optional courses. The obligatory courses are transport economics, transport policy, maritime transport, structural changes in world economics, port economics, integrated logistics and strategic management tools. The Flemish Government is offering fellowships to students from certain developing countries. The Port Authority, Belgian Railways, terminal operating companies, government departments and a bank dealing with funding port infrastructure and superstructure are associated with the Institute.

Institute of Transport and Maritime Management Antwerp; Klaus de Brucker; 2020 Antwerp; Fax: +32 3 218 0746.

PORT MANAGEMENT ASSOCIATION OF EASTERN AND SOUTHERN AFRICA

The 22nd Council Meeting of the Port Management Association of Eastern and Southern Africa will be held in Khartoum, Sudan from 1-5 December 1996. Topics to be discussed include human resource development, cruise tourism, marine environment protection and transit traffic to land-locked countries. This meeting is an important forum to allow the exchange of knowledge as well as strengthening sub-regional cooperation.

Port Management Association of Eastern and Southern Africa; P.O. Box 99209; Mombasa; Kenya; Fax: +254 11 228 344 or Sudan Ports Corporation; P.O. Box 2534; Khartoum; Fax: 249 11 779 349.

PORT MANAGEMENT ASSOCIATION OF WEST AND CENTRAL AFRICA

The 21st Council Meeting of the Port Management Association of West and Central Africa will be held in Bata, Equatorial Guinea from 2-10 December 1996. This meeting is also an important forum to allow the exchange of knowledge as well as strengthening sub-regional cooperation.

Port Management Association of West and Central Africa; P.O. Box 1113; Apapa-Lagos; Nigeria; Fax: +2341 587 1278 / 587 7977.

INTERNATIONAL CONFERENCE ON SAFETY IN THE PORT ENVIRONMENT

This is the 4th Conference organized in Bremen and its theme will be "The Human Factor". Topics to be discussed will include ship and shore security, future availability of qualified port personnel, safety in port premises and ship/shore communication in port services. The Conference will define possible needs for technical assistance and/or specialized training which could be provided to developing countries. The Conference will take place from 14 to 16 April and will be held in the World Trade Center, located in the center of the city. The Conference is hosted by the Senator of Ports, Transport and Foreign Trade and sponsored by the International Maritime Organization and the Baltic and International Maritime Council.

Port and Transport Consulting; Bremen; Fax: +49 421 398 3698.

20th BIENNIAL CONFERENCE OF IAPH

The next IAPH Conference will take place in London from 2 to 6 June 1997 and will be sponsored for the second time by the Port of London Authority. The Opening Ceremony and Welcome Reception will take place Sunday evening (1 June) with the working sessions starting on Monday. During the week, there will be seven different themes discussed as follows: Opportunities for and impediments to the growth of international trade; Commercial issues facing the ports and shipping industries; Financial pressures on the ports and shipping industries; Coexistence of ports with the environment; Regeneration of old port areas; Safe seas and safe ports; Port ownership - public responsibility or private enterprise. On Wednesday there will be a technical tour of the Port of Tilbury. There is a 20 per cent reduction of the registration fee for IAPH members for early registration up to February 27.

Port of London Authority; Sheila or Terry Hatton; London E1 9LB; Fax: +44 171 265 2699.

UNCTAD REVIEW OF MARITIME TRANSPORT, 1995

The 150-page guide to the maritime and related industries is now available and identifies major developments in world maritime transport and provides a comprehensive data base on all aspects of demand and supply of shipping services. It is a unique source of information on present and forecasted future seaborne trade as well as on fleet development, including such features as beneficial ownership, fleet productivity, freight market analysis, port development and multimodal transport. In this issue there is an in-depth coverage of maritime transport developments in trades with Africa. The Review may be ordered from the Sales and Marketing Section of the United Nations at a price of US\$50.

Sales and Marketing Section; Palais des Nations; 1211 Geneva 10; Fax: +41 22 917 0027.

Acknowledgements

*The secretariat would like to express its thanks to the organizations who have assisted in the preparation of this Newsletter. In particular, the **Port of Dunkirk Authority** who have printed and distributed the Newsletter, the **Instituto Portuario de Estudios u Cooperacion** (Trainmar Centre of Spain - Port Authority of Valencia) who have assisted in the translation of the Newsletter into Spanish, and the **Regional Trainmar Resource Centre** based in Guadeloupe who have assisted in the translation into French. Without the assistance of these three organizations, the Ports Newsletter would not be in its present form.*

The UNCTAD Ports Newsletter was established following the recommendations of the intergovernmental group of experts on ports. Its objective is to improve the distribution of information on port activities of the UNCTAD secretariat. It also includes technical and other information of interest to the international port community, in particular for ports from developing countries.

The Newsletter is published once a year. It is produced in English, French and Spanish and is sent free of charge to a network of more than 350 focal points in more than 150 countries. For others who wish to receive it, we request a financial contribution of US\$30 per year. For additional information, please contact the UNCTAD secretariat at the address below:

Le bulletin portuaire de la CNUCED a été créé en application des recommandations du groupe intergouvernemental d'experts portuaires. Son objectif est d'améliorer la diffusion d'informations sur les activités portuaires de la CNUCED. Il publie aussi des informations techniques ou autres présentant un intérêt pour la communauté portuaire internationale, en particulier pour les ports des pays en développement.

Le bulletin paraît une fois par an. Il est publié en anglais, français et espagnol et diffusé gratuitement à un réseau de plus de 350 correspondants dans plus de 150 pays. Aux autres qui souhaitent le recevoir, nous demandons une contribution financière de 30 dollars par an. Pour de plus amples informations, contacter la CNUCED à l'adresse ci-dessous indiquée:

El Boletín Portuario se publica como consecuencia de una de las recomendaciones del grupo intergubernamental especial de expertos portuarios. Su propósito es mejorar la distribución de la información relativa a las actividades portuarias de UNCTAD. Incluye información técnica y otras de interés para la comunidad portuaria internacional, especialmente para aquella de los países en desarrollo.

El Boletín se publica uno vez al año. Se edita en español, francés e inglés y se distribuye gratuitamente en una red de más de 350 corresponsales ubicados en más de 150 países. A aquellos otros interesados en recibirlo se les solicita una contribución financiera de US\$ 30 por año. Cualquier información adicional solicitarla a la dirección siguiente:

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Printed in France
GE.96-52086 November 1996-600

UNCTAD/SDTE/TIB/MISC.1
ISSN 1020-3656