

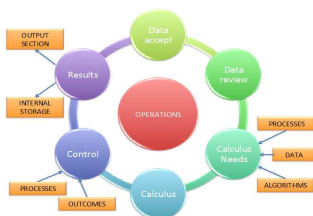
Villa Carmen

Dr. Udo Witulski
Damm 81
25421 Pinneberg
Germany

Those reports described **in blue print** are also attached in full, but without annexes, to my web site 'www.villacarmen.de'

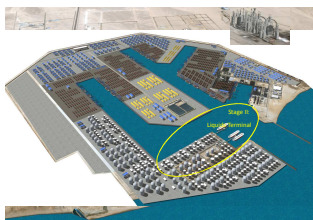
Selbstständig (Villa Carmen):

SEC Project Maintenance Study, Kingdom of Saudi Arabia, September 2013



In the past decade, Saudi Arabia witnessed a substantial expansion in infrastructure projects, both in terms of numbers and scale, and of geographic and sector coverage. In its attempt to extract maximum benefits to the economy from these projects in the long term, the Government directed its efforts towards measuring the cost of operation and maintenance (O&M) of these projects. The study prepared a list of all infrastructure projects currently in operation and expected to begin operation in 2013 by size and sector of activity, and developed models for appropriate measurement of O&M costs of the selected projects. These models could then be used by the Government for estimating O&M costs of remaining projects in comparable categories.

Expansion of Liquid Bulk Terminal at Ain Sokhna Port, Egypt, February 2013



The Ministry of Transport Investment Unit and the Red Sea Port Authority (RSPA) are provided with transaction advisory expertise needed to perform a comprehensive financial valuation, assessment, and appraisal of a concession agreement (i.e. expansion of Liquid Bulk Terminal at Ain Sokhna Port). To this aim, the Report establishes a reasonable margin or normal rate of profit over and above total costs, provided estimates of revenues to facilitate estimates of the concessionaire's rate of return on investment, and recommends balanced payments of balanced port dues, royalty and land leases to the RSPA.

Lazika Port Development and Construction Study, Georgia, December 2012



The Seaport Development Master Plan Study is aimed at identifying the elements for the construction of Anaklia Seaport in a manner that would enable the Client to operate the seaport on full scale after having finished all activities enumerated in the Master Plan Study. The seaport shall primarily concentrate on containers and bulk cargo handling operations. The tasks covered all the works related to establishing a traffic forecast for an envisaged port in Lazika. The main objective of the traffic forecast was to provide enough information for the contractually agreed Master Plan Study. The results of the activities were presented in a Traffic Forecast Report.

Institutional Support to Vietnam Inland Waterway Administration, for Mekong Delta Transport Infrastructure Development Project, Vietnam, August 2012



The TA aims to support the Vietnam Inland Waterway Administration (VIWA) in assessing, implementing and evaluating a holistic, strategic and integrated capacity enhancement framework. The framework provides a continuous, proactive and methodical process for VIWA. It also enables them to make key decisions that strengthen their capability to implement and achieve plan objectives. Defined VIWA's purpose, its desired destination in 5 years, and its performance scorecard; provided recommendations for its optimal institutional structure in line with mission, vision and capacity. A five-year strategic plan was developed for sustainable inland waterway management, with priority objectives, supporting work program and budget plans based on performance scorecard specifying business targets, safety, design and customer service standards and their corresponding actions to achieve them. Undertook an in-depth assessment of functions, organizational structure and recommendations for improvement of river-port management. Prepared business cases / feasibility studies for development of provincial ports to be financed by World Bank.

TRACECA Transport dialogue and interoperability between the EU and its neighboring countries and Central Asian countries, Azerbaijan, June 2011



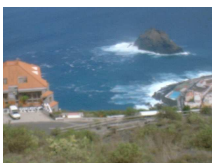
The TRACECA program has been promoting a corridor between Southeastern Europe and Central Asia as alternative to the transport routes offered by Russia as remnant of the former COMECON economic association. The present project constitutes a successor of a series of verified projects and has already succeeded in promoting the TRACECA Corridor and in attracting financial pledges from a multitude of international financial institutions. Political dialogue with representatives of the TRACECA member countries, definition of future strategies to enact TRACECA objectives, promotion of TRACECA goals, visualization of activities, scheduling of seminars and meetings, coordination of activities of key and short-term experts and of other TRACECA TA projects.

Traffic and Transport-Cost Forecast and Market Report for World Bank National Port Strategy, Yemen, April 2009



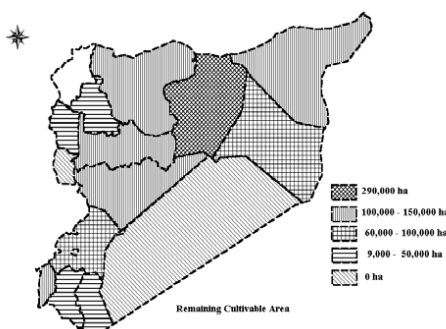
These studies constitute an actualization of the 1992-93 Yemen Port Sector Strategic Development Study, however incorporating a much sharper picture of the transport constraints presently existing in the country. A traffic forecast established a sound picture of the cargo volumes to be expected between the individual Yemeni ports on the specific overland transit and internal roads. The transport-cost forecast and market report subsequently lined out the infrastructural deficits of the national road network and calculated the costs on individual roads connecting the ports with their major demand centers.

Reorganization of the Jordanian Ministry of Transport, Jordan. June 2008



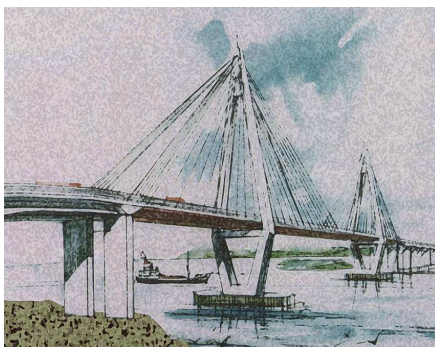
The Port and Maritime Department within the MoT had lost almost all functions to the private sector and Government commercial entities are required restructuring. Consequently, a short, medium and long-term Transport Policy and Strategy was developed.

Traffic Forecast and Financial Feasibility of Port Development Plan - Technical Assistance to the Port of Tartous, Syria, June 2007



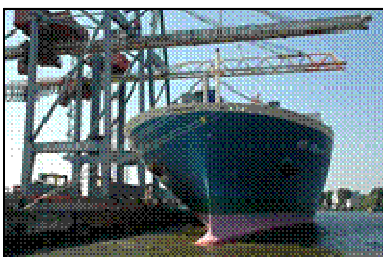
Proposed extension possibilities were validated as to their financial implications by applying a proved calculation model. Revenues were predicted to grow in line with traffic trends, traffic volumes were expected to be similar for all extension options. The financial analysis included all revenues chapters, as given by the Tartous Port Tariff for predictable revenue incomes. Additional income from voluntary services was not estimated. The financial analysis incorporated all capital expenditures. Re-investments into infrastructure, utility connections or large-sized equipment were not expected to become necessary. The financial analysis considered maintenance costs for infrastructure establishments as major position of current expenditures. As measure for the financial return from the contract options, the financial internal rate of return (FIRR) was calculated on the net cash flows. The net present value (NPV) was included as second measure in order to provide for a comparison in value terms. Apart from the most-probable scenario, impact of the worst-case and best-case scenarios was additionally calculated on both revenue and expenditure side.

Economic and Financial Feasibility of Karachi Harbour Crossing - Design of Bridges connecting Deep Draft Berth with Manora & Bridge, Pakistan, July 2007



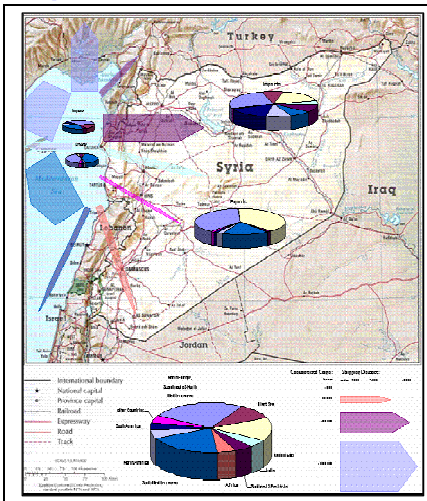
Economic evaluation of the project was conducted for each option based on present and future traffic. Economic effects of the Karachi Harbour Crossing (KHC) was then assessed by comparing the situation "with project" with the present and future situation "without project". The "without case" supposes that traffic growth and investments will develop independently from the KHC-project and as forecasted. The economic evaluation consists of two approaches: (1) The financial appraisal to investigate the long-term financial performance and the return of the investment gained by revenues when operating the KHC; and (2) The economic appraisal comprises a cost-benefit analysis - thus including socio-economic and environmental considerations related to traffic and spatial development - not necessarily resulting in cost or revenues of the investor and/or operator of the KHC, but in impacts on environment or socio-economic development externalised to the population, the public expenditure budget and/or the overall national welfare.

Rentabilité financière de la Zone Est du Port de Conakry (Financial Analysis for the East Port of Conakry), Guinea, December 2005 (co-author)



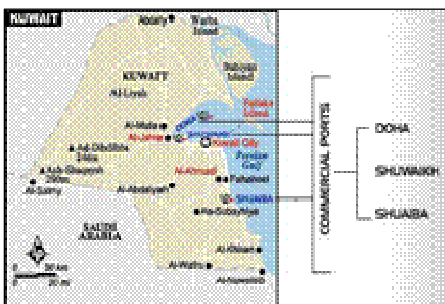
Based on major traffic and financial indicators, I drew up a - rather crude - traffic forecast, concluded consequent financial figures and calculated the revenues which could be reaped by the port authority for its various cargo operations and landlord services. Comparing the cost that can be expected to provide these services, I calculated a financial cost-benefit analysis and provided several financial indicators on a spreadsheet with the possibility to alter basic calculation input figures. Finally, I drew up a description of the process of analysis calculation and recommended the best expenditure-spending levels.

Traffic Forecast and Financial Feasibility of Modernizing Syrian Seaports (Lattakia) - Tender Preparation for Container Terminal Management, Syria, May 2007



Two methods were applied to forecast the cargo volume handled at Lattakia Port: One was a macro projection as a method to estimate Syria's trade volume as a group including various commodities, regardless of the volume of each commodity. The share of Lattakia Port in this nationwide trade was then deduced from available demand variables. The other was a micro projection as a method to estimate the cargo volume of each commodity individually in Lattakia Port. The development of cargo throughput was then varied according to available logistics variables. Both projections were distinguished into a medium-term forecast (with rather certain input variables applied) and a long-term trend (where the projected traffic volumes were estimated to grow within the limits of a best-case and a worst-case scenario). A medium-term development of Syria's economy and its logistics infrastructure was provided, both being the best applicable determinants for port-traffic projections. Then, the total future cargo volume crossing Syrian borders and moved through Syrian ports was projected and, after considering the function and role of both ports Lattakia and Tartous, future cargo volume in the port of Lattakia was determined and future container-cargo volume deduced. This macro projection was then compared with the container cargo projected to be moved through Lattakia Port (micro projection). Thereafter, projected cargo volumes were translated into numbers and sizes of vessels expected at Lattakia Port, taking into consideration the development in the business and technology environment. Finally, a sensitivity and risk analysis of the most probable scenario was provided.

Consultancy Services on Developing a Marketing & Business Strategy and Implementation Plans for KPA, Phase 1 Report February 2006, Phase 2 Report, Kuwait, July 2006 (co-author)



General objectives of the Project were a comprehensive understanding of potential markets for Kuwait's commercial ports including analysing trade flows on the Arabian Peninsula and in the Arabian Gulf, freight rates and vessel development, trade practices and institutional factors and medium to long-term traffic development in the region; formulating a strategy for practical implementation to increase the ports' competitive position, including informing the trading community of the ports' achieved strong points and planned improvements through the elaboration of possible marketing strategies, selection of the preferred strategy, development of appropriate marketing tools, and preparation of a publicity campaign to promote the ports' volume of business; assessing the ports' strengths, weaknesses, opportunities and threats including calculating the potential share of the commercial ports in the regional trade, by comparing with other ports in the Arabian Gulf competing for regional trade; and transforming customer requirements into facilities and dedicated services by way of improving the ports' financial, human and operational resources. The marketing study contained a marketing concept for the Kuwaiti commercial ports; the overall marketing policy and objectives for the Kuwaiti commercial ports; an organisation plan for a KPA marketing department; and an identification of the potentials and subsequent measures to improve customer orientation and operations efficiency of Kuwait's ports.

Valorisation et Mise en Concession du Port de Djen Djen (Economic and financial cost-benefit analyses and decision-support to concessioning), Algeria, November 2004 (co-author)



The Algerian port of Djen Djen was constructed as a bulk-cargo port about 20 years ago, when the requirements for present cargo types could not yet be fully foreseen. Our study had to identify the best process to include one large terminal, not yet quay-enforced nor equipped, into an overall port master plan and to determine the strengths, weaknesses, opportunities and threats of this approach by discussing the planning concept with shipping lines and other potential container-terminal operators. To this aim, I developed both economic and financial cost-benefit analyses and thus determined the feasibility of adding another container terminal to this already rather well furnished Mediterranean region.

Implementation Protocol for the Establishment and Funding of the Solomon Islands National Transport Fund, October 2006 (co-author)



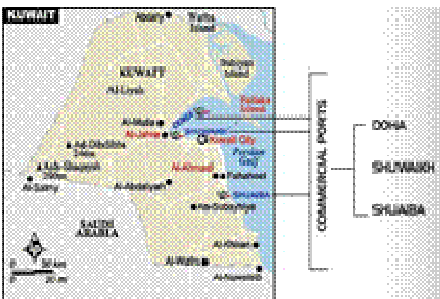
The major economic constraint for the Solomon Islands is the wide dispersal of the population across the country's far-flung islands, most of which have experienced limited economic development caused, among other, through irregular inter-island shipping. Poor transport and communications, the difficulty in accessing funding facilities, and long distances to market outlets particularly inhibit rural development. To prepare EU funding, I determined shipping service-support requirements by identifying those services which could be considered as essential services but which are substandard, by outlining plans for the improvement of all those services identified as essential but substandard, together with indicative costs over time for the desired improvements, and by developing a framework for the selection of services to be included in the programme and identify an appropriate mechanism, time schedule and work plan by which an institution could co-ordinate the implementation of these improved services.

Plan Directeur 2006 Lomé Port (Lomé Port Master Plan), Togo, December 2006 (co-author)



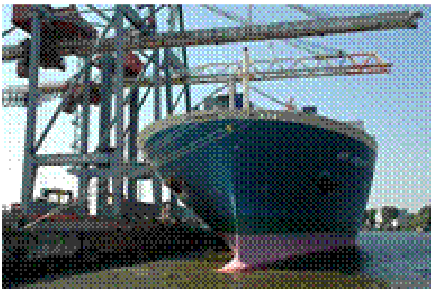
The port of Lomé has, during the last years, experienced a growth of cargo operations quite higher than predicted in its last traffic forecast of 1999. In order to adapt its facilities and equipment to the present and future needs, an update of this traffic forecast was therefore required. In a first step, I actualized all cargo figures by help of up-to-date traffic statistics and drew my first recommendations out of the traffic calculations. Utilizing regional and national economic indicators and comparing those to the past traffic forecast of 1999, I then concluded short to medium-term growth rates and gave a trend analysis for the next 15 years. Based on these growth rates, I finally calculated future traffic volumes distinguished by cargo types and by major commodities. These traffic forecasts serve as precondition to identify the future requirement fore cargo-handling facilities and equipment.

Consultancy Services on Developing a Marketing & Business Strategy and Implementation Plans for KPA, Phase 1 Report February 2006, Phase 2 Report, Kuwait, July 2006 (co-author)



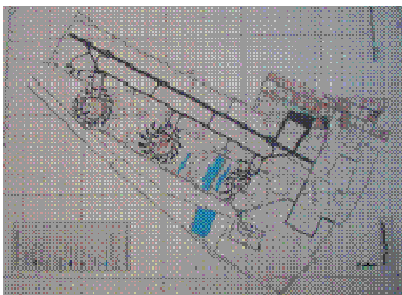
General objectives of the Project were a comprehensive understanding of potential markets for Kuwait's commercial ports including analysing trade flows on the Arabian Peninsula and in the Arabian Gulf, freight rates and vessel development, trade practices and institutional factors and medium to long-term traffic development in the region; formulating a strategy for practical implementation to increase the ports' competitive position, including informing the trading community of the ports' achieved strong points and planned improvements through the elaboration of possible marketing strategies, selection of the preferred strategy, development of appropriate marketing tools, and preparation of a publicity campaign to promote the ports' volume of business; assessing the ports' strengths, weaknesses, opportunities and threats including calculating the potential share of the commercial ports in the regional trade, by comparing with other ports in the Arabian Gulf competing for regional trade; and transforming customer requirements into facilities and dedicated services by way of improving the ports' financial, human and operational resources. The marketing study contained a marketing concept for the Kuwaiti commercial ports; the overall marketing policy and objectives for the Kuwaiti commercial ports; an organisation plan for a KPA marketing department; and an identification of the potentials and subsequent measures to improve customer orientation and operations efficiency of Kuwait's ports.

Rentabilité financière de la Zone Est du Port de Conakry (Financial Analysis for the East Port of Conakry), Guinea, December 2005 (co-author)



Based on major traffic and financial indicators, I grew up a – rather crude – traffic forecast, concluded consequent financial figures and calculated the revenues which could be reaped by the port authority for its various cargo operations and landlord services. Comparing the cost that can be expected to provide these services, I calculated a financial cost-benefit analysis and provided several financial indicators on a spreadsheet with the possibility to alter basic calculation input figures. Finally, I drew up a description of the process of analysis calculation and recommended the best expenditure-spending levels.

Aufbau des Logistikstandorts Lahr - Modul A: Entwicklungspotenziale für den Logistikstandort Lahr (Identification of Development Potential of Airport and Logistics Centre Lahr), Lahr / Germany, November 2005



The client 'IGZ Industrie- und Gewerbezentrum Raum Lahr GmbH' has a big trade and industrial area at the airfield Lahr at its disposal and would like to use these surfaces for the development of the region. During the last years, the IGZ had already successfully attracted a row of businesses from the most different industries. However, there still existed a large free surface especially in the west area. Therefore by help of this study, the city of Lahr intended to advance the settlement of, if possibly under utilization of the airfreight facilities of the airport Lahr, strengthening through it the economy location of Lahr with its already existing businesses. The target of this study consisted of a methodically sound identification and nominal designation of at least 150 logistics services in Germany, France and Switzerland, with the aim to prove that their specific location requirements could be optimally served by the IGZ and thus induce them to move or expand to its area at Lahr.

Etude de Mise au Point de la Stratégie d'Ouverture des Activités Portuaires Commerciales à la Concurrence (Port Sector Commercialisation and Privatisation Study), Algeria, October 2005



The work comprised a four-phase work programme for the introduction of private sector operations in the ten commercial ports of Algeria. It commenced with an evaluation of the present situation on the ports and an assessment of current development projects. The prevailing legal and regulatory framework was also analysed. The second phase comprised an analysis of the tariff situation and other financial aspects. It was followed in the third and fourth phases by detailed recommendations for privatisation strategies and associated implementation plans, training and management development requirements for each port. My part of the study contained the description of overall macro-economic aspects of the Algerian economy; a traffic and throughput analysis for each port; a competition analysis between the Algerian ports including evaluation of important liner services for each port; the identification of potential clients for operating port facilities with regard to commercialisation; the development of future scenarios for each port; an identification and description of port related activities with regard to commercialisation; an evaluation of requirements in view of commercialisation of port activities including the aspects of separation of private and public responsibilities; an assessment of the financial/economic implications of restructuring (impact analysis); and detailed commercialisation/privatisation strategies for each port.

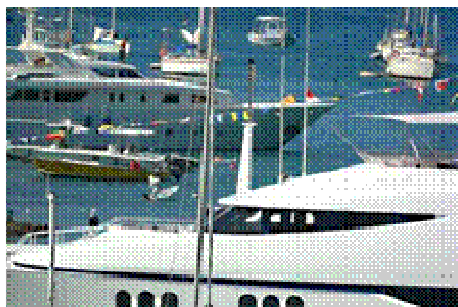
Valorisation et Mise en Concession du Port de Djen Djen (Economic and financial cost-benefit analyses and decision-support to concessioning), Algeria, November 2004 (co-author)



The Algerian port of Djen Djen was constructed as a bulk-cargo port about 20 years ago, when the requirements for present cargo types could not yet be fully foreseen. Our study had to identify the best process to include one large terminal, not yet quay-enforced nor equipped, into an overall port master plan and to determine the strengths, weaknesses, opportunities and threats of this approach by discussing the planning concept with shipping lines and other potential container-terminal operators. To this aim, I developed both economic and financial cost-benefit analyses and thus determined the feasibility of adding another container terminal to this already rather well furnished Mediterranean region.

HPC Hamburg Port Consulting GmbH and UNICONSLT Universal Transport Consulting GmbH:

Marina and Pleasure Boating Facilities Masterplan: Shanghai Municipal Development Planning Commission, Shanghai / China, September 2003 (co-author)



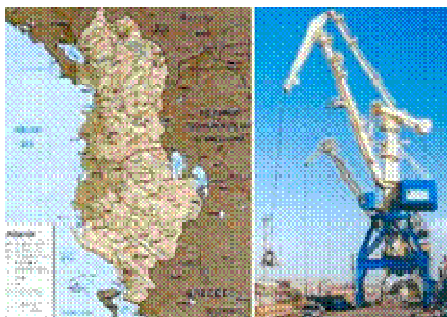
The objective of the project was to prepare a masterplan for the development of pleasure boating facilities in the navigable waters of the Shanghai area. The possible range of facilities, the structure of the overall organisation and the required legal framework were all integrated into an urban development plan, covering Shanghai and the adjacent region and meeting the needs of the different segments of the leisure boating market. Within an overall long-term time horizon up to 2020, five marinas and yacht harbours were projected to be completed within the first decade (by 2010). These marinas would form the basis of the further development of the area, including small sailing boats on existing and artificial lakes, small motor boats on the inland waterways and large sailing boats and motor yachts on the navigable waters of Hangzhou Bay, Yangtze Estuary and the lower reaches of Huangpu River up to the Bund-promenade at the city centre. I executed a demand forecast for yacht locations and calculated the consequent requirements for marina space.

Rijeka Gateway Project Port/Urban Area Redevelopment Project, Rijeka / Croatia, July 2003



The main objective of the project was to assess the costs and benefits of relocating the Passenger Terminal in the Port of Rijeka, Croatia, currently situated centrally in immediate proximity to the Rijeka CBD and representing the only city access to the waterfront. Since the corresponding benefits were mostly indirect, resulting in the fact that relocation costs would probably not be recovered from the proceeds of port and terminal charges, all direct (to the Port) and indirect (to the region) benefits were also calculated. In the process of restructuring and modernizing port operations the PRA proposed to relocate a number of other activities in addition to the passenger terminal. The resulting prime commercial land, located as it was close to the Rijeka CBD, was to be redeveloped for commercial and leisure activities. The work programme also included, in close co-operation with the PRA, the City and other authorities, an assessment of this proposed redevelopment as outlined in the General Urban Plan drawn up in 2003. The study defined the legal framework for the project; prepared lease- and other necessary contract agreements; and identified and assessed constraints imposed by the Land Development Plan and the Rijeka General Urban Plan. I conducted a forecast of revenues generated from land sale or land leases, municipal recurrent costs and revenues and other sources, and executed the financial and economic analyses and the resulting economic/financial cost benefit analyses.

Port Privatisation Technical Assistance Project - Cost-Based Tariff Study for Durres Port Authority, Durres / Albania, February 2003 (co-author)



The objective of the project was to assist the the port of Durres in the privatisation of stevedoring and other port services and in preparing and implementing the required institutional and legal reforms. While the port authority was to remain a landlord, port services were to be provided by the private sector under competitive conditions involving leases, concessions or service agreements. The restructuring required reforms in the management of tendering and contracting large scale projects and in the application of new legal provisions specifying the powers and obligations of the port authority, while at the same time securing stakeholders' advice in port planning and development. The study provided a new port law accompanied by relevant rules and regulations; recommended on the commercialisation of the port's engineering activities via their assignment to port service providers together with the necessary equipment, and of port operations through the establishment of competition among private sector operators; and on the concessioning of the bulk terminals in the port. I assisted with the preparation of contracts between the port authority and the newly formed operating companies including advice on appropriate charges and leasing arrangements, and with the preparation of draft concession contracts according to international standards and advice on the principles for calculating handling charges and leasing fees.

Turkmenistan EBRD Operation Performance Evaluation and Review Report for the Port of Turkmenbashi, Turkmenbashi / Turkmenistan, September 2002



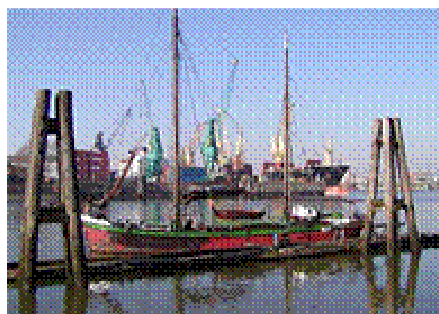
This project comprised a review and evaluation of the technical co-operation (TC) activities associated with EBRD's investment in the Turkmenbashi Port Development in Turkmenistan. These were aimed at institution building for the Turkmen Maritime Lines (TML), the borrower and TC recipient. The study encompassed six areas of TC activities: a review of the outcome of the activities, measured against objectives and expectations, an analysis of the underlying reasons for any significant performance variations, an assessment of the impact of the TC activities on the transition process in the country (covering the authority, employee, the environment, the transport sector and the economy in general.) Also included were an assessment of EBRD's performance, identification of the key issues, definition of the role of the beneficiaries in the preparation, implementation, ownership (sustainability of benefits) of the results of the TC activities, and formulation of conclusions and recommendations for the improvement of TC activities.

Strategic Study on the viability of establishing European Rail Traffic Management System (ERTMS) on selected railway lines in the CEECs/Poland, Czech Republic, Slovak Republic, Hungary, Slovenia - Train Frequency Forecast & Economic Feasibility for Railway Project for the TEN Railway Corridor Project, Ljubljana / Slovenia, August 2001 (co-author)



This project served to establish the technical and financial feasibility of upgrading a railway link between Budapest and the Slovakian port of Koper. I surveyed the railway network in the Slovak Republic and across the borders with its neighboring countries. Based on train frequencies and service-traveling speed of trains commonly employed in the region, I calculated daily passenger and cargo capacities and developed this calculation into a train frequency and capacity forecast. Utilizing cost figures provided from other team members plus present and anticipated train fares, I then calculated the economic feasibility of upgrading a railway link.

TRACECA Traffic and Feasibility Studies: Study on the establishment of a new shipping service on the Caspian Sea including road and rail hinterland transport - Module B: New Caspian shipping services Business Plan - TRACECA Caspian Shipping Lines Project, Baku / Azerbaijan, November 2001 (co-author)



Many transport users agree that, as of today, moving cargo over the intra-Asian TRACECA route is very expensive by any standards. The main objective of the study had been to analyze the technical, financial and economic feasibility of establishing a shipping line in the Caspian port of Baku offering ferry services across the Caspian Sea as an important link of this TRACECA route. If the results of the feasibility analysis justified the investment, then this study was to form the base for the preparation of a tender dossier with detailed technical specifications. After estimating the potential revenues based on various cargo-forecast scenarios, our team estimated the vessel purchase costs by inquiring the costs for second-hand 15 to 20 year-old vessels from the Mediterranean market, calculated all direct and indirect operating costs, and finally established the financial internal rate of return under the various scenarios, complete with risk and sensitivity analyses.

Port Marketing and Business Strategy Development Project, Kuwait, October 2001



The overall objectives of the project were to develop and implement marketing strategies to promote the understanding of the potential markets for the KPA, to assess the port's strengths and weaknesses, opportunities and threats, to implement practical steps to improve the port's competitive position, and to transform customer requirements into new facilities and dedicated services. I assisted in presenting a first outline for a marketing strategy for the promotion of the understanding of the markets for the port, in assessing the competitive position of KPA (in terms of strengths and weaknesses, opportunities and threats), in recommending new facilities and dedicated services specifically designed to meet customer requirements, and in recommending other strategic steps to improve the competitive position of the ports.

Container terminal performance and capacity evaluation, Fos-Marseille / France, July 2001



The main objective of the project was to assist PMA with the development of a growth strategy for their Fos Container Terminal in Marseille. The aim was to increase throughput by entering new market sectors. In addition, the overall performance of the terminal had to be improved by operational and organisational enhancements. PMA needed to set benchmarks for productivity levels and growth rates to reach its target of "best practices". A weak-point analysis was undertaken and recommendations prepared for the practical and effective achievement of these targets in the shortest possible time. The study assessed the current capacity of the terminal and its growth potential; analysed methods for the improvement of market acceptance and integration; evaluated present terminal performance; compared productivity benchmarks with those of competitors; assessed the present and future capacity of the berth cranes, storage area and hinterland transport; proposed measures to optimise present terminal and implementation schemes; and discussed the development of the new container terminal.

Plan Maestro Nacional de Transporte - Sección institucional y legal del sector portuario y tráfico marítimo (National Transport Master Plan), Guatemala, February 1996 (co-author)



The National Transport Master Plan covered all modes of transport: road, rail, air and sea. Within this framework HPC was responsible for ports, inland waterways, coastal shipping and lakes. Special emphasis was placed on the development plans for Santo Tomás and Puerto Barrios on the east coast and Puerto Quetzal and Champerico on the west coast. Particular attention was paid to privatisation and commercialisation, the creation of a national port authority and the development of hinterland connections (road/rail) between east and west coast ports. The study contained analyses of port rules and regulations, of productivity considering facilities, the nature of cargo and types of vessel, of the national shipping line and a review of foreign lines serving Guatemalan ports, of administrative, legal and environmental aspects and related issues. of infrastructure and superstructure, and of intermodal transport issues with special regard to a possible land bridge; traffic and cargo flow forecasts by sectors; and a national port and maritime transport plan with short-, medium- (1996-2000) and long-term (2000-2015) activities. I analysed port rules and regulations; administrative, legal and environmental aspects and related issues; and assisted in developing a national port and maritime transport plan with short-, medium- (1996-2000) and long-term (2000-2015) activities.

Regional Transport and Communication Integration Study for Southern Africa (TACISSA) - Economic forecast for southern African SATCC member countries comprising all economic factors, Mozambique, October 1996 (co-author)



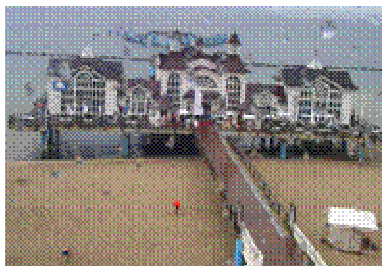
Objective of this study was the preparation of a regional transport integration plan in the port and shipping sector, including possibilities for the introduction of harmonized policies and additional cooperation with particular respect to maritime safety and environmental issues. Special attention was paid to the impact of South Africa joining the Southern Africa Development Community. The study identified the present status and major constraints of the sectors; identification of future constraints; defined the performance criteria; and contained a development and evaluation of strategic options; a preparation of appropriate regional strategies; an analysis of manpower resources and development; an assessment of proposed investment plans; an investment and policy action programme; and bidding documents for future ports and shipping projects.

Feasibility study on Freeport Operations - SWOT analysis of sea- and airborne transports through Port Louis, Mauritius, September 1995 (co-author)



Due to its geographical location in the Indian Ocean, the government of Mauritius intended to develop its nation into a transshipment hub for both sea- and airborne cargoes. I collected all data on both national and regional levels and combined these into a SWOT (strengths, weaknesses, opportunities & threats) analysis. This analysis served as basis to estimate facilities and equipment requirements and to calculate economic and financial feasibilities.

Feasibility Study on the Refurbishment / Upgrading of the Entebbe International Airport Cargo Handling and Storage Facilities, Kampala / Uganda, July 1995, 103 p. (co-author and editor)



The Entebbe International Airport decided to utilize its location advantage on the eastern African central plateau to serve as export node of local and regional produce. We investigated the potential (international demand and communications) and requirements (cooler/freezer chain) to export national primary products (roses, Nile perch, etc.). Based on the forecasted cargo types and volumes, we designed the storage and handling areas and facilities of the airport's cargo-handling and storage facilities. Finally, we collected the prices of inputs in the region and overseas and deducted the costs of refurbishing / upgrading these facilities.

Plan Maestro Nacional de Transporte - Informe Diagnóstico (National Transport Master Plan), Guatemala, May 1995, 60 p. & annexes (co-author)



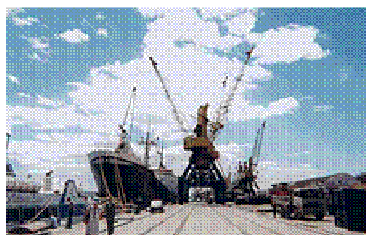
Our part of this study of the actual conditions of all transport modes covered by the National Transport Master Plan encompassed an in-depth investigation into Guatemala's ports, inland waterways, coastal and lake shipping facilities. Our team visited the ports of Santo Tomás and Puerto Barrios on the east coast, the ports of Puerto Quetzal, San José and Champerico on the west coast, the lakes of Isabal, Atitlán and Amatitlán; and the inland waterways of Río Dulce and Canal de Chiquimulá. Based in the capital of Guatemala, we then drew up a comparison of all land-based facilities (infrastructure and superstructure), vessels and intermodal transport means (road and rail), national and foreign shipping operators serving Guatemalan ports; and a consideration of administrative, legal and environmental aspects and related issues.

Si-Chang Thong Terminal Development Phase 1, Study for Updating the Pre- and On-Carriage Study and Market Analysis, Bangkok / Thailand, March 1995, 105 p. & annexes (co-author)



The objective was to update the pre- and on-carriage study and market analysis report, previously prepared by HPC in 1991. A viability analysis was also carried out prior to the development of a new container terminal on the Si-Chang-Thong island. The study contained analyses of the existing economic situation in Thailand and the surrounding region and forecasts of its future development, of the current freight market in the greater Bangkok area and a forecast of its future growth and of container traffic in the port of Bangkok; a projection of its development; an evaluation and assessment of Si-Chang Thong's competitors covering their current performance and future prospects; a quantification of the potential market share of the new Si-Chang Terminal; a comprehensive marketing strategy to maximise the business obtained; and an overall viability analysis for the terminal.

Vietnam's Integration into the World Economy: Market Prospects in the Port Sector, Ho Chi Minh City / Vietnam, January 1995



The objective of the study was to analyse the market prospects in the Vietnamese port sector following the country's integration into the world economy. The study contained an assessment of Vietnam's transformation process and its impact on trade; an analysis of past and present cargo throughput in the country's major ports; a traffic forecast for dry and containerized cargo until the year 2005; and a description of the Vietnamese port sector including existing infra- and superstructure, problem areas, extension plans, the size of investments and financing methods.

Strategic Study on International Freight Transport to and from the Russian Federation on the Black Sea Routes, Interim Report, Moscow / Russian Federation, December 1994, 237 p. (co-author and editor)



Bound into the TRACECA Program, the EU required an investigation into the possibilities and costs to connect the Russian heartland around Moscow via the Volga river with the Black Sea. Our team also had to put these connections into the wider frame of binding the Moscow region onto the Baltic Sea and to operate sea-river vessels from Moscow via the Volga and Black Sea onto the Danube river. I analyzed the competitive advantages and disadvantages of such a connection as against road- and rail-based faster but lower-capacity connections transiting the Ukraine to the Black Sea and transiting Belarus and Poland into Western Europe.

Mozambique Feeder Shipping Services Feasibility Study and Plan of Action, Gabinete de Coordenacao de Projectos da Marinha, IBRD, Maputo/Mozambique, January 1994, 280 p. (co-author and editor)



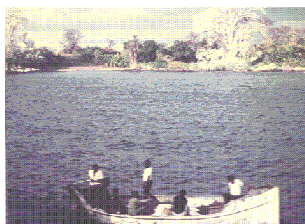
Government policy directed towards the restructuring of the national shipping industry comprised the reform of coastal feeder shipping with significant private participation. A forecast of future demand in this sector was required including passenger and cargo volumes, the formulation of privatisation strategies and preparation of the requisite regulatory and institutional framework. A restructuring concept for a government owned shipping company was also developed. The study contained an up-date of the demand for feeder services; an analysis of traffic options for passengers and freight and recommendations for the optimum strategy; an identification of investment needs for ships and port infrastructure and of a strategy for development of small scale operators and their access to finance equipment and spare parts; recommendations for access criteria and regulatory changes required, taking previous relevant studies into account; and a restructuring and financing strategy enabling the government owned shipping line to provide feeder services on a commercial basis

Lease of Kotoka International Airport Freight Terminal, Tender Documents for Ghana Civil Aviation Authority, Accra / Ghana, September 1993, 160 p.



In order to improve the efficiency and cost effectiveness of air cargo handling services at the Kotoka International Airport in Accra, privatisation is intended. Specialist consultancy services are required to prepare tailor-made bid documents for the forthcoming lease of the airfreight centre. Fact finding on-site, including: survey of air cargo-handling and storage facilities, evaluation of statistics and prevailing tariff structure, examination of present air cargo services; consultation. I prepared the bid documents comprising four volumes: tender and contract documents, background information, terms of reference and financial proposal.

Feasibility Study on Volta Lake Container Transport, Volta Lake Transport Company, Akosombo / Ghana, June 1993, 180 p.



Feasibility study covering the planning and design of comprehensive container handling and transport requirements. The definition of cargo handling methods, equipment requirements, storage facilities, transport routes, manpower needs, training requirements and all associated costs. The study contained an assessment of existing container traffic and facilities; a ten-year forecast of container imports and exports; a specification of transport routes; economic, financial and engineering analyses and associated capital investments; an assessment of floating and shore-based equipment requirements; a definition of manpower requirements and training needs; a design of operations procedures; and a definition of tariff structures.

Yemen Port Sector Strategic Development Study - Multi-Mode Transport Project, Ministry of Transport, Sana'a / Yemen, January 1993, 340 p. (co-author and editor)



Development of measures to provide the ports of Yemen, within the next decade, with efficient operating procedures, up-to-date planning and trained staff. The project comprised four different elements: staffing requirements and development programme, economic and financial study, equipment and maintenance study and assistance in the procurement of maintenance tools and equipment. The study contained a manpower development programme with recommendations for necessary training measures; an assessment of port equipment and its condition (and recommendations for its rehabilitation or replacement) and of current main-tenance procedures; a maintenance management strategy; an analysis of financial and accounting systems; an introduction of cost centres and related accounting guidelines; an accounting system containing all elements for management reports; and the economic priorities for the rehabilitation of infrastructure and equipment.

Future Use of Barges in Traffic to Berlin (development of inland waterways transport of Berlin), BEHALA, Berlin / Germany, May 1991, 234 p. (co-author)



Before 1990, inland waterway traffic to Berlin was restricted by the authorities of the former GDR. Following unification, the competitiveness of barges has been improved and the further development of existing waterways will increase the importance of inland shipping to Berlin. Bearing this in mind, the future of the ports in Berlin was evaluated including the feasibility of the transfer of transshipment activities. The study contained an analysis of planned development of the inland waterways to Berlin; an analysis of the quality of the infrastructure and superstructure of the ports; traffic forecasts; a specification of necessary developments and of future requirements for port services; an evaluation of macro-economic effects of the extended cargo flows by barge; and an analysis of the suitability of port locations in the Berlin area

Technical Proposals:

- **Viabilidad para una Terminal de Contenedores en Ceuta (feasibility of a container terminal), Autoridad Portuaria de Ceuta / España, September 2002, 27 p.**
- **Demanda de Transporte y Mercados de Contenedores y Frutas (demand for container transport and fruit markets), Autoridad Portuaria de Santander / España, May 2002, 35 p.**
- **Plan Estratégico por Autoridad Portuaria de Valencia (strategy plan), intecsa-inarsa / España, August 2001, 63 p.**
- **EU - India Maritime Workshop II, CEC, India, July 1995, 23 p.**
- **Evaluation of Tender Bids for BOT Expansion Works in the Ports of Colombo and Galle / Sri Lanka, MSPRR, June 1995, 30 p.**
- **Feasibility Studies on Truck Ferries across Lake Victoria and Containerization of Goods Transport in Uganda, Technical Proposal for KfW, August 1994, 85 p. (co-author and editor)**
- **Gefährliche Güter in ASEAN Häfen (dangerous goods in ASEAN ports), GTZ, June 1994, 52 p**
- **Plan Nacional de Desarrollo Portuario de Costa Rica (Costa Rica National Port Master Plan), IDA, May 1994, 75 p.**
- **Regional Transport and Communication Integration Study for Southern Africa, CEC, April 1994, 40 p. (co-author)**
- **Port Consultancy Services for Point Lisas Industrial Port / Trinidad, PLIPDECO, February 1994, 34 p.**
- **Policy Reforms in the Indian Ports and Shipping Sector, ADB, April 1993, 72 p.**

GTZ Gesellschaft für Technische Zusammenarbeit GmbH:**Privatization Potential of Cargo Operations in SEAPA Commercial Ports, Saudi Seaports Authority SEAPA, Riyadh / Saudi Arabia, February 1992, 38 p.**

In early 1992, the Ministry of Finance intended to have port operations performed by labor employed directly under the port authorities. However, privatization of cargo-handling operations would have reduced direct revenues and thus would have been unacceptable. The Ministry through the port authority had invested considerable capital into the provision of facilities and equipment and intended to guarantee financial returns from capital expenditures. The SEAPA Fifth Development Plan emphasized an extension of lease contracts and a free competition between contractors. However, it set no financial targets, defined no programs, and stated no projects for these two important policies. I advised against net-profit sharing on a percentage basis as long as lease contractors resisted to periodical and complete opening of financial accounts. On contrast, I recommended to issue fixed rental contracts over long periods if revenues were to be calculated under estimated future cargo volumes.

Development of Global and Regional Container Trade 1989-91, SEAPA, Riyadh/Saudi Arabia, December 1991, 44 p.

During the 1990s, worldwide container movements reached an ever-increasing share in global seaborne trade. Container shipping was to predictably continue to grow dramatically, because it had just begun in vast areas like China and India. As major operators took delivery of large, new tonnage, the trickle-down effect of first generation ships being re-deployed in feeder trades was to continue. One consequence of high-capacity dedicated shipping was the establishment of further hub ports that are strategically located along the major east-west routes. Jeddah as the most natural choice for relay hub to Middle East and East African destinations did not develop in time due to government restrictions. In light of this growing container trade, my major recommendations were to ease legal and customs restrictions in all SEAPA ports in order to facilitate regular sea/land transit services into Kuwait (and later into Iraq and Iran), to tender a second lease contract in Jeddah port and a contract for a multi-purpose terminal in the port of Dammam or Jubail in order to permit free competition between port contractors, and to discuss with the Ministry of Defense and Aviation the potential of sea/air transport at the Old Jeddah Airport and at Dahrhan Airport.

Cost-Benefit Structure of Major Commercial Ports 1988-1990, SEAPA, Riyadh/Saudi Arabia, October 1991, 73 p.



In late-1991, I finalized the cost-benefit analysis of the ports at Jeddah and Damman, to determine their productivity as the only ports utilizing a cost center system. This final report followed the preliminary report in analyzing annual expenses and revenues according to trading account as provided by the port finance departments. I then allocated these expenses and revenues according to accounting and revenue centers, and compared them to generate a trading balance. The port economist again visited the finance department of the two major commercial ports to complete formats on revenue and expenditure breakdowns, and to collect financial data for the years 1988 and 1989. Parallel, I collected missing sections of the accounts manual.

Cost-Benefit Structure of SEAPA Ports 1990, SEAPA, Riyadh/Saudi Arabia, August 1991, 57 p.



Since 1987, no analysis of cost-center calculations had been performed within SEAPA. Similarly, submissions of monthly formats on management information ceased since. Internal budgeting procedures were switched to an ad-hoc basis where and when finances were required. In mid-1991, I conducted a preliminary cost-benefit analysis of all SEAPA ports, to determine their productivity and consequent ability to offer rebates and save expenditures. To this aim, I visited the finance and revenue departments of all ports to improve and complete formats on revenue and expenditure breakdowns. At the same time, I collected budget statements and other available information on trading accounts. The results of these port visits I worked into individual financial breakdown of costs and revenues as generated by the various terminals and port services.

Potential Rebates and Discounts in the SEAPA Unified Tariff 1985, SEAPA, Riyadh/Saudi Arabia, April 1991, 48 p.



During the 1990s, throughput of the most versatile commodities such as vehicles and containers was badly affected in all SEAPA ports. Many commodities were rerouted through neighboring ports offering lower handling tariffs. Many Middle-East ports had started marketing their services and negotiated rates based on business volume and commitment to the port. On contrast, in all SEAPA ports operation of containers, vehicles, general and ro-ro cargo, solid bulk and small livestock was overpriced to such an extent that shipping agents were induced to look for alternative ports to discharge cargo if this can be further transported via land transit. As a consequence, I recommended to introduce discount rates to shipping lines on annual minimum container and bulk cargo volumes, to consider tariff rebates during low seasons in order to balance commodity imports throughout the year, to grant rebates on specific cargo types at certain SEAPA ports, where berthing and handling facilities are underutilized, and on transit commodities on a case-to-case basis, where need arises from national over-demand or undersupply.

Coastal Trade in the Red Sea 1989 and 1990, SEAPA, Riyadh/Saudi Arabia, January 1991, 26 p



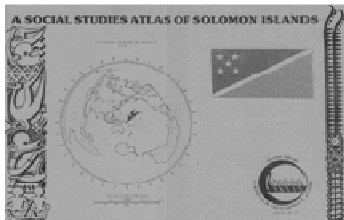
During the last decades of the 20th century, concentration of regular shipping through development of Jeddah and other major ports had eliminated almost all traditional traffic along and across the Red Sea coasts. Also, road transport as 'door-to-door' service on asphalted coastal roads connecting all minor ports had diverted coastal shipping by competing favorably on low operating costs and better services. In this study, I investigated the remaining coastal trade (solid-bulk cargo transported on a tramp basis, small quantities of agricultural produce and livestock, fish landed in most minor ports). My major recommendations were a rededication of most minor ports to serve construction materials, a simplification of customs procedures to utilize coastal trade for competitive transit, and a promotion of the establishment of development centers as long-term potential.

Minor Reports:

- Potential Reductions in Jeddah Islamic Port Tariffs for Handling Cargo on Land Transit into Kuwait, SEAPA, Riyadh / Saudi Arabia, March 1991, 22 p.
- Development of Commodity Throughput 1991-94, SEAPA, Riyadh, January 1991, 32 p.
- Berth Occupancy and Capacity Utilization 1410H, SEAPA, Riyadh, October 1990, 41 p.
- Stevedore Monthly Performance Jan. - Aug. 1990, SEAPA, Riyadh, September 1990, 48 p.
- Revenue-Expenditure Comparison 1409H-1410H, SEAPA, Riyadh, September 1990, 32 p.

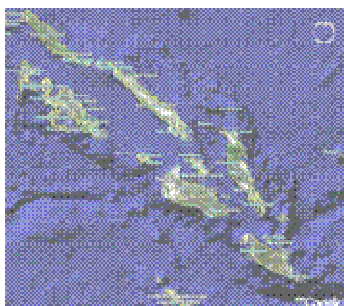
UNDTCD United Nations Department for Technical Cooperation and Development:

A Social Studies Atlas of Solomon Islands – An Insight into the Infrastructure of a developing Nation, Solomon Islands Curriculum Development Centre, Honiara/Solomon Islands, September 1990, 59 p. (co-author)



This project aimed at providing social and economic information suitable for secondary school pupils. It was also intended that this collection of data, based mostly on the 1986 National Census, would be of use to others in Solomon Islands and even overseas. I did most of the paper work, converting statistics into graphs and providing most of the text. Some updating of my material was conducted by teachers and appropriate Government departments.

Solomon Islands Country Monograph - Regional Planning Conceptions and Instruments, UNDP Publications, New York, 1989, 90 p. (co-author)



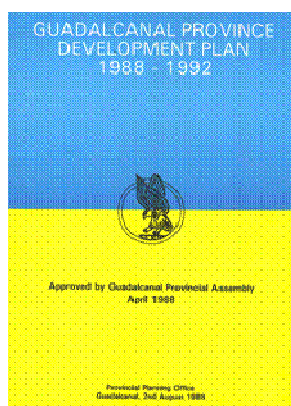
Since its independence in 1978, the Solomon Islands joint other South Pacific nations in their problems of administering and planning for a widely dispersed and inhomogeneous territory. Following the approach of a small-country problematic, this monograph gave a brief description of Solomon Islands' socio-economic disparities, outlined instruments and policies of national and sub-national planning, and finally investigated the impact of planning on sub-national development.

Resource Production and Distribution in the Solomon Islands, Deutsche Gesellschaft für Asienkunde, Asien, Nr. 33, Hamburg/Germany, 1989, 26 p.



The Solomon Islands are economically not as successful as their regional neighbors; one of the main reasons might be the inhibiting effect of the 'Wantok System', basically a redistribution loyalty within the clan or village community. This article sets out to describe this specific and other general underlying present problems of the island nation, and to investigate the future prospects of production and distribution of her resources.

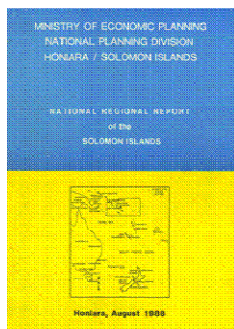
Provincial Development Plans, Ministry of Economic Planning, Gov. Printer, Honiara / Solomon Islands, September 1988 (co-author, maps and editor)



As an outcome of the meeting on provincial development planning, organized by the Ministry of Economic Planning in June 1987 for provincial secretaries and planners, it was agreed that all provinces would prepare provincial plan documents in order to strengthen their planning capacities and to ensure an improved cooperation between central, provincial and local planning levels. These eight plans covered the period 1988-1992 and, to allow a better integration of provincial planning into the overall national planning process, all followed a standardized format. These plans were intended to be revised in 1992 for the next five-year plan. Since this was the first true effort at completing a comprehensive Provincial Development Plan for Central Province, these plans set guidelines of what the provinces intended to achieve.

The Provincial Development Plans 1988-92 were drafted by the individual Provincial Planning Officers in the various Provincial Planning Units. Inputs were given by provincial division heads, elected officials and community leaders. The first drafts were revised and amended by the Provincial Executive Committees. Subsequently, the Provincial Full Assemblies amended the final drafts of the Provincial Development Plans. I provided technical assistance in the form of provision of data, maps, reviewing and editing the plan.

National Regional Report of the Solomon Islands, Ministry of Economic Planning, Gov. Printer, Honiara/Solomon Islands, August 1988, 46 p.



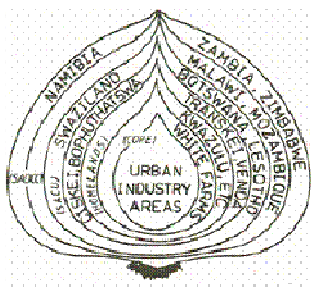
The Solomon Islands National Development Plan 1985-89 called for the need of 'an overall assessment on the current social and economic situation of each province to provide base data and information on which a long-term regional development strategy could be formulated and national development programs be assessed and implemented.' This National Regional Report (NRR) paper attempted to collect and elaborate existing regional data. 'The general approach to regional development is to take a region i.e. a province as a whole, determine its needs and identify problems and issues that will have to be dealt with and devise a development strategy and programs tailored to those needs. Within each region there may be particular needs and problems peculiar to certain areas only, this will be taken into account and specific attention will be focused on them.' However, since the Provincial Development Plans 1988-92 were to address their provinces' own specific problems and solutions, the NRR was to aggregate sub-provincial data, sector objectives and constraints onto a provincial level.

Other Planning Documents:

- **National Development Plan - 1985-89 Mid-Term Review, Ministry of Economic Planning, Gov. Printer, Honiara / Solomon Islands, September 1988, 235 p. (co-author)**
- **Development Budget 1988, Draft, Ministry of Economic Planning, Gov. Printer, Honiara / Solomon Islands, September 1988, 135 p. (co-author)**
- **Programme of Action 1987-1989, Ministry of Economic Planning, Gov. Printer, Honiara / Solomon Islands, June 1987, 185 p. (co-author)**
- **Regional Distribution of Project Benefits and Financial Contributions, Draft, Ministry of Economic Planning, Honiara / Solomon Islands, December 1986, 12 p.**

Africa Institute of South Africa:

Macroeconomic Linkages among Southern African Countries, IFO-Institut für Wirtschaftsforschung München, Afrika-Studien 117, Weltforum Verlag München, Köln, London, 1990, 223 p.



This study aims at laying open the economic dependencies between South Africa and the frontline-states in the sectors of agriculture, mining, water management, basic needs, labor migration, technology, transport, industry, trade and finances. Parallel to this description, it takes account of the potential effects of these dependencies onto the development potential in the region. Subsequently, the study discusses the consequences of diminishing these interactions through economic sanctions imposed by South Africa, and finally advises on an alternative to any such economic sanctions. I had originally written the study in 1985-86, then returned to South Africa in 1989 to actualize as my PhD-thesis at the 'Technische Universität Berlin'.

Crafts and Small Enterprises in the Economic Periphery of Malawi, Africa Insight No. 3, Pretoria/RSA, August 1986, 8 p.



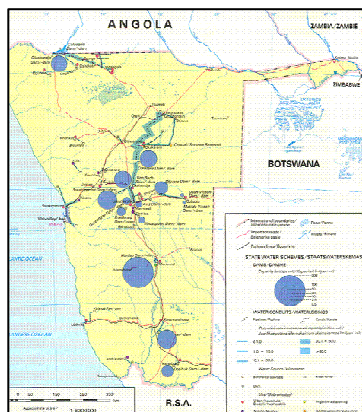
This article is a summary of my above study 'Macroeconomic Linkages among Southern African Countries', but contains photographic material not included in my study.

Black Commuters in South Africa, Africa Insight No.1, Pretoria/RSA, February 1986, 11 p.



This article arose out of my impression of the hardships, which Pretoria's black population had to endure every day just to get to their work places from Mamelodi, the city's black township. My research, fully supported by the Africa Institute, provided me with mind-boggling statistics which, after I had interpreted them, showed me the whole irrationality of the apartheid system – meaning “irrationality” not only in the human, but mainly in the economic sense. I am almost convinced that it was this economic irrationality, which made the white government to finally drop apartheid.

Namibia's development constraints, Africa Insight (draft)



Just before political independence came about in November 1989, this article lined out the most important economical constraints for Namibia's self-reliant development. I based my article's findings and recommendations upon the experience, which I gained during my two-month field work in Namibia, during which I traveled the whole country and consulted with government agencies and private enterprises.

Bayerische Julius-Maximilians-Universität Würzburg:

Crafts and Small-Scale Enterprises in the Economic Fringe of a Southern African Developing Country - An Empirical Analysis of Situation and Potential in the Kawinga Region in Malawi, Liwonde / Malawi, EG-Pressstelle, Bonn, 1984, 129 p.



This study is a result of field studies conducted between July 2nd and September 17th 1983 in the Kawinga region of the Republic of Malawi. Kawinga, which is situated in the East part of the Southern Region, represents a typically remote rural area. With its long distances and seasonally restricted transport routes to urban and semi-urban areas, and with its economical seclusion to the East by an officially impenetrable border to Mozambique, Kawinga shows all the disadvantages of an economically inactive region, where a selective out-migration takes place over large populated areas. In a field survey I identified 14 different branches in seven different kinds of location with declining centrality. The study contains the pro-ceeding and major results of this field survey.

Seminar Reports:

- Rif, Djurdjura, Aurès - Strukturanalyse Berberischer Rückzugsgebiete (structural analysis of Berber retreat areas), University of Würzburg/Germany, December 1982, 36 p.
- Interessen der Rohstoff-fördernden Entwicklungsländer auf der 3. UN-Seerechtskonferenz, das Beispiel Zaire (interests of resource-exploiting developing countries in the 3rd UN Conference on the Law of the Sea - the example of Zaire), University of Würzburg/Germany, July 1982, 55 p. (co-author and editor)
- Lösungsansätze für Infrastrukturprobleme im Stadtverkehr (solutions to problems of urban transport infrastructure), University of Würzburg/Germany, May 1981, 12 p.

State University of New York:

- Space Imagery to Assist in Urban Planning, State University of New York, Oneonta/USA, November 1981, 14 p.