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Progress Report to member States on Training
of African Personnel in Inland Water Transport

1. ECA resolution 332 (XIV) concerning the development strategy for Africa for the Third Development Decade (ECA document E/CN.14/INF.107/Rev.1) states that "African countries should make the development of transport and communications a top priority and give it the required support".

2. According to the above-mentioned resolution the main elements of the strategy for river and lake transport should be

joint development of rivers and lakes
pooling of the various possibilities provided by rivers and lakes
development of river and lake transport - infrastructure, management, legislation.

3. The Plan of Action for the implementation of the Monrovia strategy for the economic development of Africa places emphasis on human resources development. Paragraph 117 of the above-mentioned plan of action states, i.e., that

"The importance of scientific and technical skills and know-how in modern development cannot be overemphasized. It is in this area that African countries are overdependent on imported technical and scientific manpower. It is therefore very cardinal and in accord with the principle of self-reliance that African States should give special priority to the development of scientific and technical manpower at all levels, including the training of science and technical teachers and instructors."

4. Special attention should be given to training of African personnel engaged in inland water transport. Through the availability of qualified personnel for operation and maintenance of river craft and lake vessels, the individual African countries will have the necessary basis for an integrated development of the immense potential of inland water transport on the African continent.

5. The modernization of inland water infrastructure such as introduction of modern vessels, of new systems of work (pushing instead of towing) self-propelled barges, etc., application of highly sophisticated tools such as radar, echo sounder, all-day-round navigation, etc., require qualified personnel.

6. The few scattered training facilities are either inadequate or do not have the required resources to cater to the present needs of the African region. There is a serious lack of skilled personnel at various levels of inland water transport including river and lake fleet personnel, inland water transport managers and economists, and inland water port managers.

7. As a follow-up action of the above-mentioned strategy ECA undertook in 1980 the project "Training of African personnel in inland water transport" financed by UNDP. The project is being implemented in two phases: Phase I - "preparatory assistance" and Phase 2 - "training of African personnel" itself.

8. The project covers 27 African countries. Angola, Burundi, the United Republic of Cameroon, the Central African Republic, the Congo, Egypt, Ethiopia, Ghana, Gabon, Chad, the Gambia, Guinea, Kenya, Liberia, Malawi, Madagascar, Mozambique, the Niger, Nigeria, Rwanda, Senegal, Sierra Leone, the Sudan, Uganda the United Republic of Tanzania, Zaire and Zambia.

9. The main specific objectives of the preparatory assistance for training of African personnel in inland water transport were:

- Review existing training facilities for river and lake transportation in African countries, their organizational and operational patterns;
- Identify the current level of skill in the field of inland water transport;
- Make assessment of training needs;
- Give an idea and proposals of various training programme;
- Make recommendations on most effective policies to be pursued and actions to be undertaken on national, multinational and international level for further training of river fleet personnel and management, taking into consideration future development of inland water transport in Africa.

10. This preparatory assistance phase of the project was undertaken by two consultants recruited by ECA and was completed by the end of 1980.

The report entitled "Review of current levels of skills, training needs and training facilities in inland water transport" has already been distributed to all participating countries through their respective UNDP offices.

11. The main findings of the report are as follows:

- In many African countries more attention to the development of inland water transport was given during recent years; special studies were prepared in this respect in Egypt, Gabon, Ghana, Nigeria and Zaire and are planned or ongoing in the United Republic of Cameroon, the Niger and Senegal.

- The available potential for inland water navigation is considered as a part of the integrated transport system and at the same time it is closely connected with the water resources development activity. As examples of such approaches the formulation of river basins plans within national framework (Egypt, Guinea, the Gambia) could be mentioned or at the level of international commissions (for Niger River), and the multisectoral analysis for the Kagera river basin could be mentioned.

- The shortage of trained manpower seems to be a critical constraint to a more effective utilization of the existing waterways, equipment and port facilities in many African countries. Also, aside from the shortage of financial resources, the shortage of highly qualified personnel impedes further development of inland water transport.

- The status (social position) of qualified personnel in inland water transport is inadequate, in many cases the living conditions of inland water fleet personnel are poor and impede a good professional practice.

- The inland water fleet personnel is not trained in the new techniques; there is a lack of technical support on board economical, organizational and managerial training has not yet received adequate attention.

- There are only few training facilities in the African region which cannot cover even the immediate training needs in the field of inland water transport. Apart from the central Training Institute for Inland Water Transport at Cairo the capacity of the facilities existing in Bangui and Kinshasa is too small, even for immediate requirements of the countries where they are located. Maritime training facilities in Ghana and the Ivory Coast helped in training personnel for inland water transport, but this support is not covering the actual training requirements in inland water transport.

- There is lack of instructors in the existing schools. The instructors in the field of inland water transport are inadequate in number; the training facilities for their instruction are also inadequate. Promotion opportunities are limited and remuneration is low.

- Curricula in some schools providing training in inland water transport are more relevant to sea-going than to inland water transport personnel textual material is not available in most cases.

- There is a lack of co-ordination of manpower problem at governmental level; there is no centralized inventory of existing manpower in inland water transport in the countries; in most cases this problem is totally left to the inland water enterprises or companies.

12. The following recommendations for the development of the immense potential of inland water transport in African to ensure the necessary qualified manpower have been proposed in the report.

- (a) An in-depth study on organization of inland water transport training centres in the African region should be undertaken. (see the project document at annex I)
- (b) This study should take into consideration the network of training facilities proposed in the report (see Annex II)
- (c) Short-term training courses on regular basis should be organized:

- (i) At Leningrad (USSR)

To train in:

- inland water port management and operation
- organization, planning and management of inland water transport

- (ii) At Wroclaw (Poland)

To train in:

- river navigation
- vessels mechanics

(iii) At Strasbourg (France)

To train in:

- river navigation
- port management and operation
- organization, planning and management of inland water transport;

(iv) and/or in other European inland navigation schools (in Federal Republic of Germany, in the Netherland, in the German Democratic Republic).

(d) On-the-job training for trainers and instructors with the assistance of the International Labour Office (ILO) and of the Intergovernmental Maritime Consultative Organization should be organized on regular basis.

(e) In many cases the focal point for training of African personnel should be the river and lake commissions, i.e. they should be created where not yet existing and those that do exist should be more operational.

(f) It would be necessary to organize in the African region the following systems of information:

(i) on existing inland water personnel and on immediate training requirements in all African countries operating inland water transport.

(ii) On the training courses conducted by the training countries and training needs of African countries operating inland water transport.

(iii) On published technical manuals, handbooks, maps, atlases and other training or teaching aids and the exchange of those aids between interested inland navigation schools. At a later stage such an exchange of information should be organized between African and European inland navigation schools.

(g) The above-mentioned actions should be promoted and pursued within a concentrated and sustained effort in order to raise the training activities at the required level and to bring it from the position of critical constraint to that of mobilizing factor of inland water transport development.

13. In the framework of the implementation of phase two of the project ECA is carrying out the preparatory activities for a three-month training course for African inland water transport personnel. This course will be held in Leningrad (U.S.S.R.) from 15 April to 15 July 1982.

14. The main output of the above course will be the opportunity that the 40 participants from all interested African countries would have had in the exposure to new methods of management of inland water ports, organization and operation of river and lake fleets.

15. The three-month training programme in the field of inland water transport on the subject "Economics, organization and planning of water transport's operation" consists of the three sections: economics of water transport, organization and planning of the fleet's and ports' operation, commercial operation (see annex III).

16. By February 1982 all interested African countries have nominated their candidates to be trained in Leningrad (USSR) and ECA and authorities of the host country are finally selecting the candidates.

17. ECA intends to organize in future on a regular basis the same up-grading courses for African personnel in inland water transport on the subjects proposed in the preparatory assistance project report.

18. In accordance with the decision of its Headquarters, UNDP's contribution to such or similar courses should in future be financed through individual country IPF's under the special national umbrella training projects which the UNDP Regional Bureau for Africa has proposed to be established for this purpose.

PART I LEGAL CONTEXT

1. This project document shall be the instrument (herein referred to as the plan of operation) envisaged in Article I, paragraph 2 of the Agreement between the Government of the host country, Ethiopia, and the United Nations Development Programme concerning assistance under the Special Fund Sector of the United Nations Development Programme, signed by the parties as on 13 July 1960.

2. It is understood that other participating Governments undertake to treat the project in the same manner as national projects with respect to facilities, privileges and immunities.

PART II THE PROJECT

A. Development objectives

The development objective of the project is provision of qualified personnel in inland water transport for African countries, where, at present, inland navigation exists or will be developed, in the following specializations:

- (a) river navigation
- (b) lake navigation
- (c) vessels' mechanics
- (d) inland water port management and operation
- (e) organization, planning and management of inland water transport.

In this way the implementation of the project will contribute to the improvement of management and operation and to the development of inland water transport.

B. Immediate objective

The immediate objective of the project is to carry out a feasibility study on the establishment and/or development of training centres in inland water transport and make recommendations on the programme of action and financing needs for the actual establishment and/or development of these training centres.

C. Special considerations

The project falls within the objectives of the United Nations Transport and Communications Decade in Africa. Establishment of inland navigation schools is included in the programme of action for the first phase as projects INP-01, INP-05 and INP-06.

This project document takes into consideration the recommendations of the recent ECA survey of the training needs and existing and proposed training facilities in inland water transport. (The survey was carried out as a preparatory assistance project - RAF/80/002).

D. Background and justification

The importance of inland water transport is growing steadily all over the world in those countries where the inland waterways are suitable for transport or the water network is being improved.

The modernization of inland water infrastructure as introduction of modern vessels of new systems of work (pushing instead of towing), self-propelled barges etc. applying of highly sophisticated tools as radar, echo sounder, all-day-round navigation etc. requires qualified personnel. Therefore there is an undisputable need for the training of qualified manpower in various aspects of inland water transport in Africa.

The few scattered training facilities are either inadequate or do not have the required resources to cater to the present needs of the African region. There is a serious lack of skilled personnel at various levels of inland water transport including river and lake fleet personnel, inland water transport managers and economists, and inland water ports managers.

The most peculiar feature of African inland water ways, from the navigational point of view, is the separation of rivers and lakes. The great natural lakes are navigable, but the rivers which flow into or originate in them are not. Thus a distinction should be drawn between river navigation and lake navigation (The only one exception at present is Ghana).

Some African countries are interested mainly in river navigation, the others - in lake navigation.

From a professional point of view, the knowledge and skills required for conducting a vessel on a river differ substantially from the knowledge and skills required for lake navigation. The captain of a vessel, when navigating on a river should know in detail the stretch of the river, should have the ability to recognize from the natural phenomena on the surface of water, (creation of waves, shape of the river bed, etc.), where the proper depth of water is and where there are shallow places. The buoys and other marks for an experienced boatmaster, are merely the aids for safe conducting of the vessel.

On the other hand, when conducting a vessel on a lake, another kind of knowledge is required such as plotting courses on maps, maintenance of compasses, the use of mechanical sounding apparatuses, navigation by radar etc.

Thus, a distinction should be made between the professional skills of the boatmaster of a river vessel and a boatmaster of a lake vessel. This statement does not mean that a boatmaster of a river vessel should not have an understanding of lake navigation, and vice-versa.

For this reason there should be - generally speaking - two kinds of inland navigation schools, for river navigation and for lake navigation.

Since the Pangalanes Canal in Madagascar represent specific navigation conditions different from river and from lake navigation, it is proposed to set up an Inland Navigation School at Tamative with a shortened course of training, due to the rather favourable conditions of navigation.

In the past when steam engine was the principal means of propulsion of vessels, the constant presence of attending person or persons in the engine and kettle rooms was one of the most important elements of ensuring safety and efficiency of work. It was a clear distinction between navigational and mechanical staff on steam vessels. With the withdrawal of steam engines and introduction of internal combustible engines, with introduction of remote operation of engines, and the installment of centres of automatical control system on vessels, there is now little justification for continuing with the separate specializations: navigation and mechanical.

To be in line with actual worldwide practice it is suggested that in the future the apprentices in inland navigation schools be ~~cross trained~~ trained i.e. both in navigational and mechanical areas of knowledge and skills to produce a combine boatman mechanics graduates capable of carrying out all duties on deck as well as in the engine room.

At present, however, and in the nearest future, the proposed change in training would be too radical. Until the problems of technical service of vessels in case of serious damages en route is suitably solved, the distinction on navigational and mechanical staff on vessels should be retained and in the inland navigation schools both specializations should exist. With the introduction of technical services as well as radio links between vessels and ports, these two specialization should be gradually converted into one.

In this respect, the proposals of distinction of inland navigation schools for navigation and for vessels' mechanics should be regarded as a transitional stage.

Another factor which should be taken into consideration is the language of instruction.

It is proposed that training centres be established for English, French and Portuguese speaking African countries.

E. Project outputs

The output of the project will be a report comprising

- The technical, financial and operational aspects of establishment (or re-establishment), expanding or development of training facilities in inland water transport including requirements for:
 - location and specialization of training centres and their area of influence;
 - buildings (area, architecture, functionality/operational pattern,
 - training equipment, material, aids,
 - training vessels,
 - training capacity and output in each field of training,

- courses programmes, syllabi and curricula for training disciplines,
- teaching staff, including needs for technical assistance and expatriates,
- gradual development of training facilities in relation to the development of inland water traffic, modifications of the transport systems, modernizations of African inland waterways, cross-training in both specializations etc.
- ways for technical co-operation with similar schools in Europe (France, the Netherlands, Federal Republic of Germany, Poland, German Democratic Republic, USSR)
- evaluation of investments required and cost of operation of each training centre,
- timing of investments, according to proposed gradual development of training centres,
- proposal of financing of investments (including interested African Governments inputs, UNDP inputs, other possible sources of financing).

F. Project activities

1. Preparatory activities.

- preparation of work programme and terms of reference for consultants 1-30 September 1982
- selection and recruitment of a team of consultants 1-30 September 1982
- briefing of consultants in ECA and preparation for field mission 1-30 October 1982

2. Field mission to collect the necessary data and information and have consultations with the relevant authorities in African countries. 1 Nov.-31 Dec. 1982
3. Preparation of draft report by the team of consultants 1 Jan.-20 Feb. 1983
4. Convening a meeting to consider the draft report. 21 - 28 Feb. 1983
5. Preparation of final report 1 - 31 March 1983

G. Inputs

(a) Participating Governments' inputs

Participating Governments are expected to provide the visiting team of consultants and ECA experts with all relevant data and information and available documents and provide assistance as may be required during the field missions.

(b) Economic Commission for Africa (ECA)

ECA will appoint a project officer responsible for the backstopping, monitoring and supervision of project activities. ECA will also arrange for the administrative support of the project.

(c) UNDP inputs

UNDP will provide the following inputs:

(i) Project personnel

- Consultants 27m/m, salary and per diem;
- Travel of consultants from their home countries to Addis Ababa and back;
- Travel and per diem to selected countries in connexion with work on the project

(ii) Missions

ECA staff travel and per diem costs for travel to selected countries in connexion with the work on the project;

(iii) Administrative support

(iv) Miscellaneous costs

H. Institutional framework

Within the ECA Secretariat, the Transport, Communications and Tourism Division will have the responsibility for the implementation of the project. The project will operate in close collaboration with existing governmental institutions of the relevant African countries.

I. Prior obligations and prerequisites

Not applicable

K. Future UNDP assistance

A project document for further financial support of the training activities in inland water transport will be submitted to UNDP.

PART III - SCHEDULE OF MONITORING, EVALUATION AND REPORTS

A. Principal project representative

The Principal Project Representative designated for this project under Chapter VI, para. 5, Section 6 of the UNDP CPM will be the Head of the UNDP Liaison Office with ECA and OAU in Addis Ababa.

B. Evaluation

The project will be subject to evaluation in accordance with the policies and procedures established for the purpose by UNDP. The organization, terms of reference and timing of the evaluation will be decided by consultation between ECA and UNDP.

C. Progress and terminal reports

In view of the short duration of the project, only a terminal report will be submitted to UNDP by ECA.

PART IV Budget

The project budget is annexed to this document.

PART IV - PROJECT BUDGET COVERING UNDP CONTRIBUTION (in US DOLLARS)

Region: Africa

Project No.

Project title: Organizational of inland water training centres
in the African Region

10.00	Project personnel	Total		1982		1983	
		M/M	\$ US	m/m	\$ US	m/m	\$ US
11.01	Team leader (inland water navigator, specialist in teaching of river and lake navigation.	7	35 000	4	20 000	3	15 000
11.02	Consultant in teaching aids and equipment, training vessels etc.	4	20 000	3	15 000	1	5 000
11.03	Consultant in teaching of vessels mechanics	4	20 000	3	15 000	1	5 000
11.04	Consultant in port management and operation	4	20 000	3	15 000	1	5 000
11.05	Consultant in org.planning and management of IWT	4	20 000	3	15 000	1	5 000
11.06	Consultant financial analyst specialist in investments	4	20 000	2	10 000	2	10 000
11.99	Sub-total	27	135 000	18	90 000	9	45 000

		m/m	⧵ US	m/m	⧵ US	m/m	⧵ US
13.00	Adm. support		15 000		10 000		5 000
15.00	Travel costs		55 000		50 000		5 000
16.00	Mission costs		10 000		12 000		3 000
19.00	Component total		220 000		160 000		58 000
50.00	Miscellaneous (including reporting costs)		20 000		5 000		15 000
53	Sundry		10 000		7 000		3 000
59.00	Component total		30 000		12 000		18 000
99.999	Grand total		250 000		174 000		76 000

Annex II

According to: Project RAF/80/002

PROPOSED ORGANIZATION OF INLAND WATER TRANSPORT TRAINING CENTRES IN THE AFRICAN REGION

Country	City	Language	Status	Fields of training	Proposed influence area	Remarks
1	Egypt	Cairo	Existing from 1975	(a) River navigation (b) Vessels' mechanics	Egypt Kenya Sudan Uganda	Central training institute for Inland Water Transport to be developed as a subregional training centre
2	Kenya	Kisumu		(b) Lake navigation (c) Vessels' mechanics (e) Organization planning and management of Inland water transport (IWT)	Kenya Tanzania Uganda Zambia	To be re-established
3	Malawi	Monkey Bay	Established	(b) Lake navigation (c) Vessels' mechanics	Malawi Zambia Zimbabwe	Project No. MLW/80/081/A/01/19 National school established in 1981 with the assistance of IMCO Intended to be expanded as subregional in the future.
4	Ghana	Accra	To be established	(a) & (b) River and Lake navigation (c) Vessels' mechanics	Ghana Gambia Liberia Nigeria Sierra Leone	To be established within the existing Nautical College as a section
5	Niger	Niamey	To be established	(a) River navigation (c) Vessels' mechanics (d) Inland water port management & operation (e) Organization, planning and Management of IWT	Niger, Benin Cameroon, Guinea Ivory Coast Mali, Chad Upper Volta	To be established
6	Burundi	Bujumbura	To be established	(b) Lake navigation (c) Vessels' mechanics (d) Intl. water port management and operation	Burundi, Cameroon Gabon, Rwanda Tchad, Zaire	To be established

ENGLISH SPEAKING

	Country	City	Language	Status	Fields of training	Proposed influence area	Remarks
7	Central African Republic	Bangui		Existing from 1976	(c) Vessels' mechanics	C.A.R. Senegal	Intended to be expanded with additional specializations of (a) and (d)
8	Zaire	Kinshasa	FRENCH SPEAKING	Existing from 1962	(a) River navigation (c) Vessels' mechanics (e) Organis. planning and management of IWT	Zaire Cameroon CAR Congo Gabon	To be expanded and located close to the River Congo/Zaire
9	Madagascar	Tamatave		To be established	Canal navigation (c) Vessels' mechanics	Madagascar	To be established for specific conditions on Pangalanes Canal and lagoons
10	Ivory Coast	Abidjan		To be established	(a) River navigation (c) Vessels' mechanics (d) Int. Water port management and operation	Ivory Coast Mali Senegal	To be established as a section within the Maritime Apprentice Training Centre.
11	Angola	Lobito	Portuguese	To be established	(a) River navigation (c) Vessels' mechanics (d) Int. water port management and operation (e) Organiz. planning and management of IWT	Angola Mozambique	To be established as a section within the Coastal Navigation school (which is to be set up in 1981 at Lobito)

Total number of schools

11 from which

Existing schools

4 Cairo, Burundi, Kinshasa, Monkey Bay

To be re-established

1 Kisumu

To be established as sections within existing maritime schools

3 Accra, Abidjan, Lobito

To be established as new schools

3 Bujumbura, Niamey, Tamatave

Programme of the African countries' personnel training in the field of inland water transport on the subject "Economics, organization and planning of water transport's operation" (time-period of training - 3 months)

The programme consists of the three sections: economics of water transport, organization and planning of the fleet's and ports operation, commercial operation.

Questions considered in each section are the following:

	Names of the topics	Number of hours
	<u>I. Economics of water transport</u>	
1.1	Significance of the river transport for economic development of the country	4
1.2	Material-technical base of the river transport (transport fleet, ports and roads, industry) and main trends of its development and modernization. Transshipment machines and devices for loading-unloading operations.	12
1.3	Wear and tear and repair of main production funds	4
1.4	Systems of payment and productivity of labour of the river transport's workers; methods of its measurement and ways to increase it	8
1.5	Prime cost of carriage on inland waterways. Expenses associated with the prime cost, methods of its calculation and ways to decrease it.	8
1.6	Prime cost of transshipment. Expenses, referred to prime cost, methods of its calculation and ways to decrease it.	4
1.7	Determination of economic efficiency of new equipment (terms and conditions for comparing variants and obsolescent equipment, economic indices of comparative economic evaluation of variants, determination of economic efficiency of new equipment's employment)	6

	Names of the topics	Number of hours
1.8	Economic advantages of the ships of mixed sailing "river-sea".	4
1.9	Planning of operation of water transport (structure and contents of separate sections of the plan). Procedure of current planning of transportation	8
1.10	Financial resources of water transport enterprises (accumulation of monetary means for the needs of an enterprise at the expense of transportation charge and ways of their effective usage. Bank credit). Organization of monetary calculation (monetary documents, their finalization, documents turn-over).	8
1.11	Analysis of production-financial activities of an enterprise. Operational technique and methods of analysis.	8
Sub-total		<u>74 hours</u>
<u>II. Organization and planning of the fleet's and ports' operation</u>		
2.1	Essence of navigation control. Actuality and ways of improvement of the transport process control. Laws of control. Functions, principles and methods of control.	6
2.2	Specifications and classification characteristics of water ways, transportation fleet and ports. Composition and specifications of transportation means. Specification and classification of inland water ways. Major elements and their characteristics. A passport system of the technical means of river transport. Technical progress at the river transport.	8
2.3	Principles of planning and organization of transport process. Types and composition of haulages, indices of the volume of haulage and transportation operation. A concept of goods traffic and passengers traffic and their characteristics. Technological methods of vessels' exploitation. Transport operations and processes of vessels' operation and indices of their employment. Types of navigation. Method of pushing. Characteristics and classification of cargo lines, Organization of rafts' towing. Organization of passenger fleet. Organization of ports' operation.	16

2.4	Notion of norm evaluation of transport operations and the use of transport and cargo transfer means. Contents and composition of specifications and norms, organization of their preparation. Norm evaluation of the use of transport vessels. Norm evaluation of the time of transport operations. Norm evaluation of the use of port facilities.	8
2.5	Vassel's operation planning. Organization of planning of transport vessels. Contents and the order of development of vessels' operational-financial plans. Monthly and voyage form of planning of vessels' crews work and organization of their labour. System of indices of vessels' plans. Analysis and evaluation of vessel's plan fulfilment.	6
2.6	Planning, -registration and analysis of the fleet's and ports' operation. Long-term and current planning of the fleet's operation. Development and analysis of fulfilment of the movement chart and its service at ports. Planning and analysis of port's operation. Methods of analysis of impact of the main factors on the indices of transport process' functioning.	
2.7	Effective control over fleet's movement and its service at ports. Preparation, registration analysis of fulfilment of the technical plan of fleet's and ports' operation. Ten-day periods and shift-daily planning. Structure and functions of dispatcher control over transport process and its processing at ports.	8
2.8	Planning and organization of cargoes haulage by various types of transport.	4
2.9	Laboratory studies on organization of the fleet's and ports' operation with the help of models	10
	Sub-total	<u>74</u> hours
3.	<u>Commercial operation</u>	
3.1	Main documents, regulating operation of the river transport	2
3.2	Main provisions of the transport law and its application at the inland water transport. Responsibilities of the carrier and cargo owners.	2
3.3	Functions and responsibilities of commercial staff of steamship-lines and ports (enterprises of the inland water transport).	4

3.4	Operative planning and its co-ordination with current planning.	4
3.5	Transportation agreement. Its peculiarities for the inland water transport.	2
3.6	Main problems of the cargo science. Physical and chemical properties and conditions of transportation of the main types of cargoes: grain, coal, ores, metal, mineral-construction, wood, package-piece, oil, oil products, perishable and dangerous cargoes.	8
3.7	Commercial operations on cargoes acceptance and transportation.	6
3.8	Transportation documents (invoice, road list, hand-in list, loading-unloading statements, Bill of lading) and the order of its compilation.	5
3.9	Order of cargoes handing-over from the port to the vessel. Preparation of vessels and holds. Plan of vessel's loading. Stowing of cargo in holds. Maximum use of holds and vessels. Determination of cargoes' mass. Finalization of documents.	5
3.10	Commercial operations in the course of cargo's delivery (supervision of cargo, readdressing, etc).	2
3.11	Commercial operations at the cargoes destination point. Order of cargo's handing-over from the vessel to the port.	6
3.12	Order of cargoes' distribution at the store. Time-periods and conditions of cargoes storage.	2
3.13	Peculiarities of commercial operations in cases when cargoes are transported by vessels of "river-sea type.	4
3.14	Types of commercial defects. Their finalization in documents.	4
3.15	Rules of passengers' carriage on inland water-ways vessels. Rates for passengers' and luggage carriage.	4
3.16	Rates for carriage of cargoes by inland water transport. Principles of their development. Classification. Order of employment. Additional cargoes. Fines and bonuses.	8
	Sub-total	68 hours
	Study tours to the enterprises of inland water transport.	
	Total:	306 hours