

Workshop

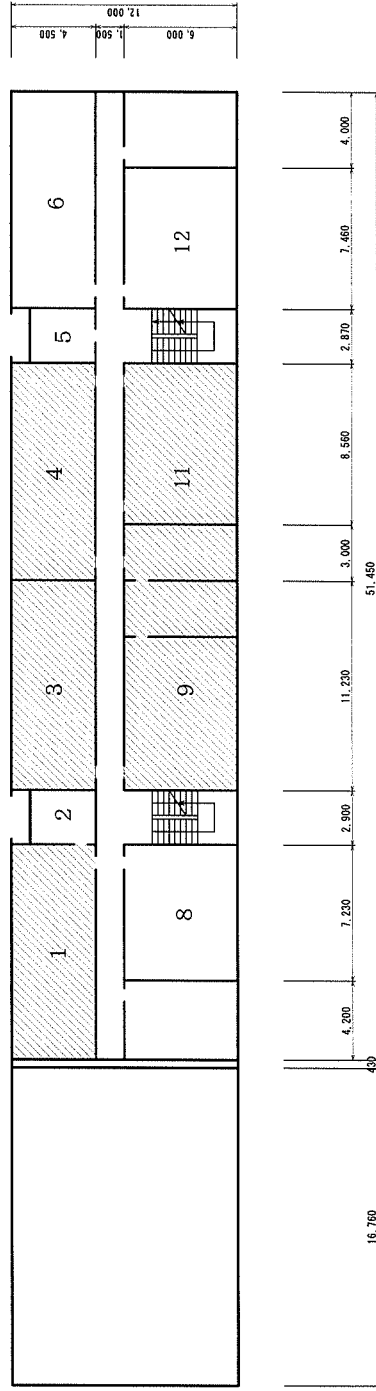
FIG 2-21 Nukus Polytechnic Professional College (Metalwork Course, Welding course)

Dormitory



Education Building (Block 4) 3rd Floor

Dormitory



Education Building (Block 4) 2nd Floor

FIG 2-22 Urgench Medical Professional College (Pharmacy Course, Nursing Course)

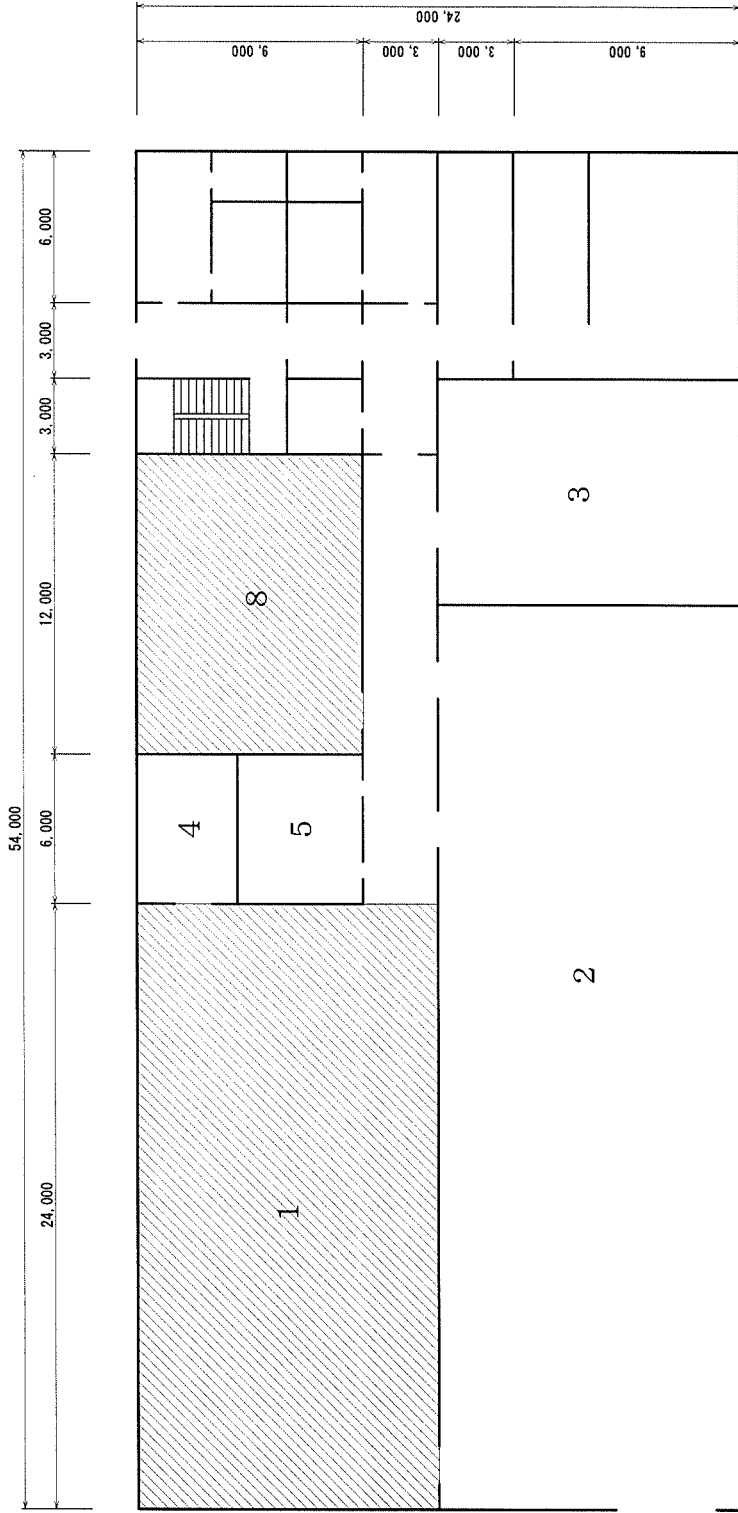
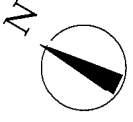
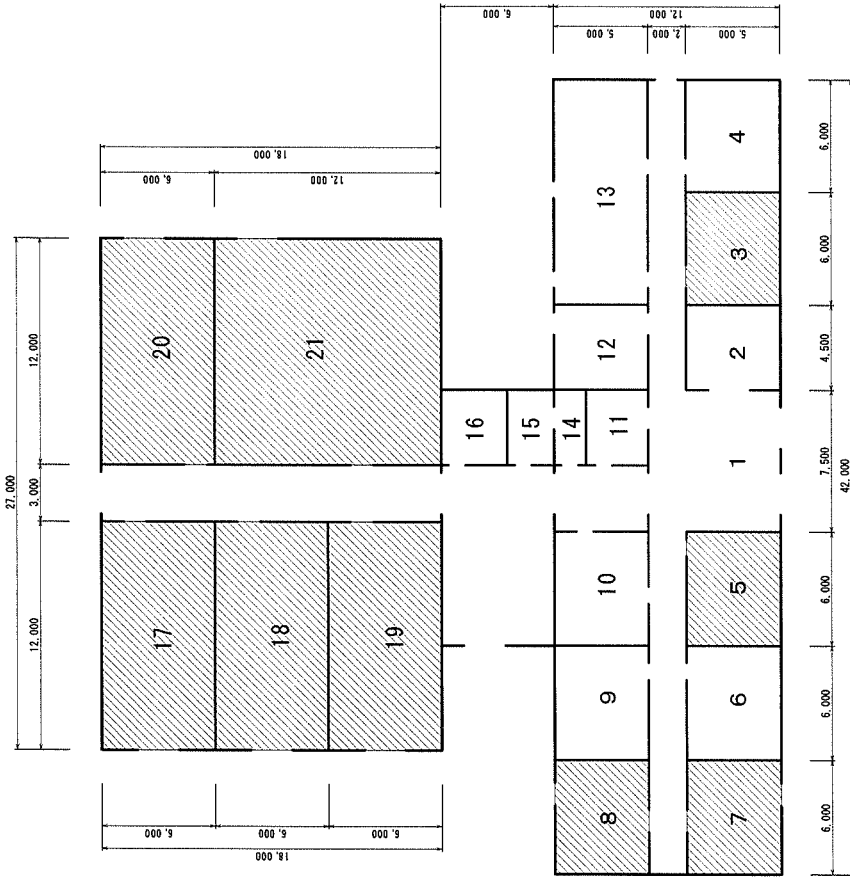


FIG 2-23 Namangan Agro-economic Professional College (Veterinary Course, Agronomy Course)

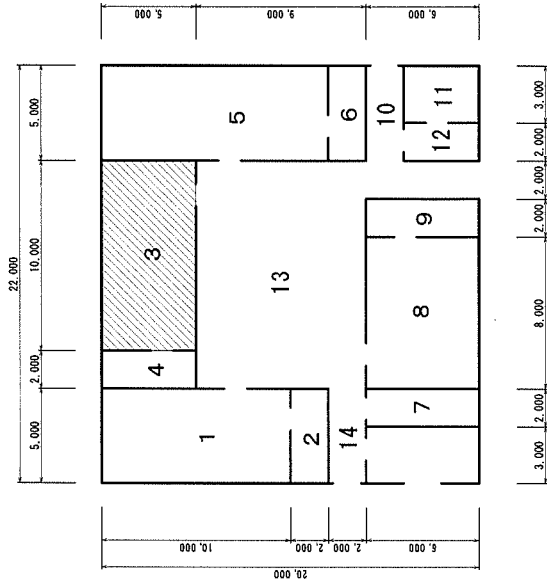


Workshop

Classroom for
Practical Training



Workshop, Classroom for Practical Training



Professional Education Building (Block 3) 1st Floor

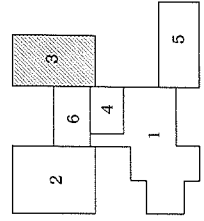
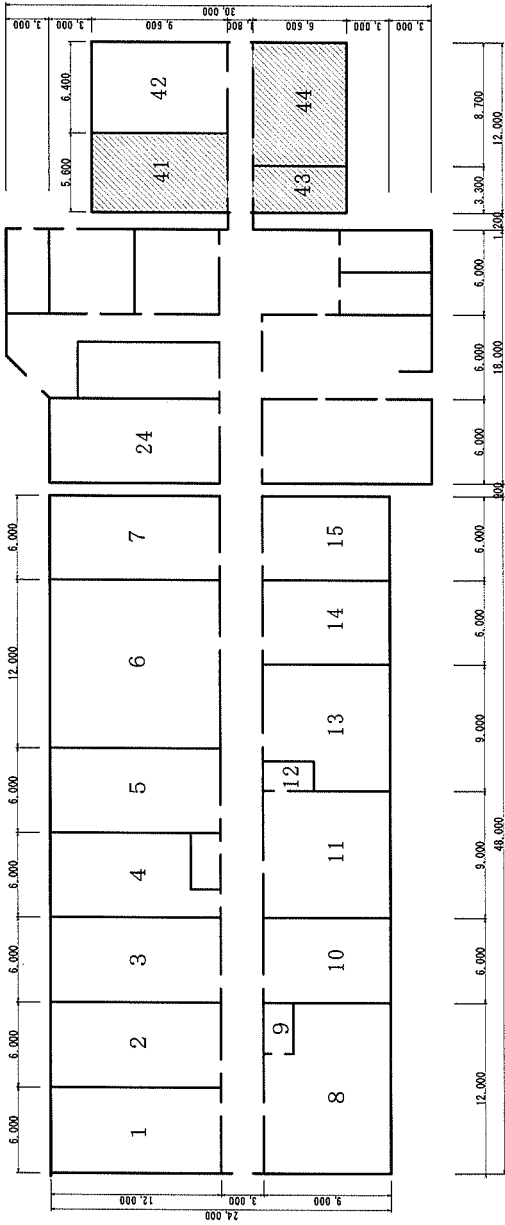
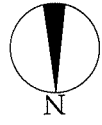
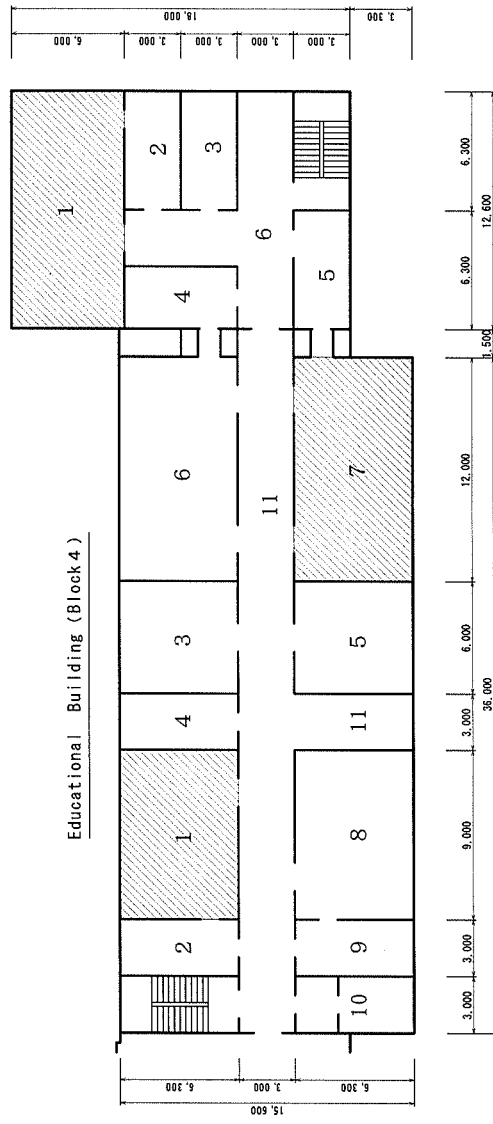


FIG 2-24 Asaka Agricultural Professional College
(Operation and Maintenance of Agricultural Machines and Equipment course)

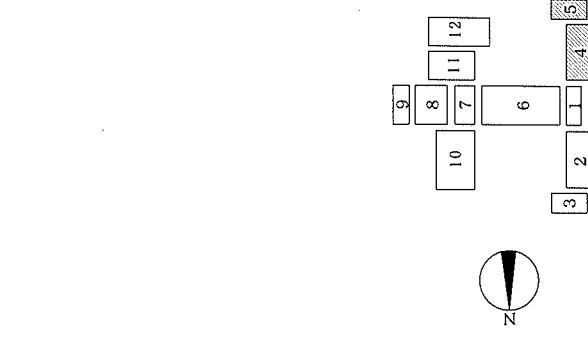


Workshop

Education Building (Block 5)

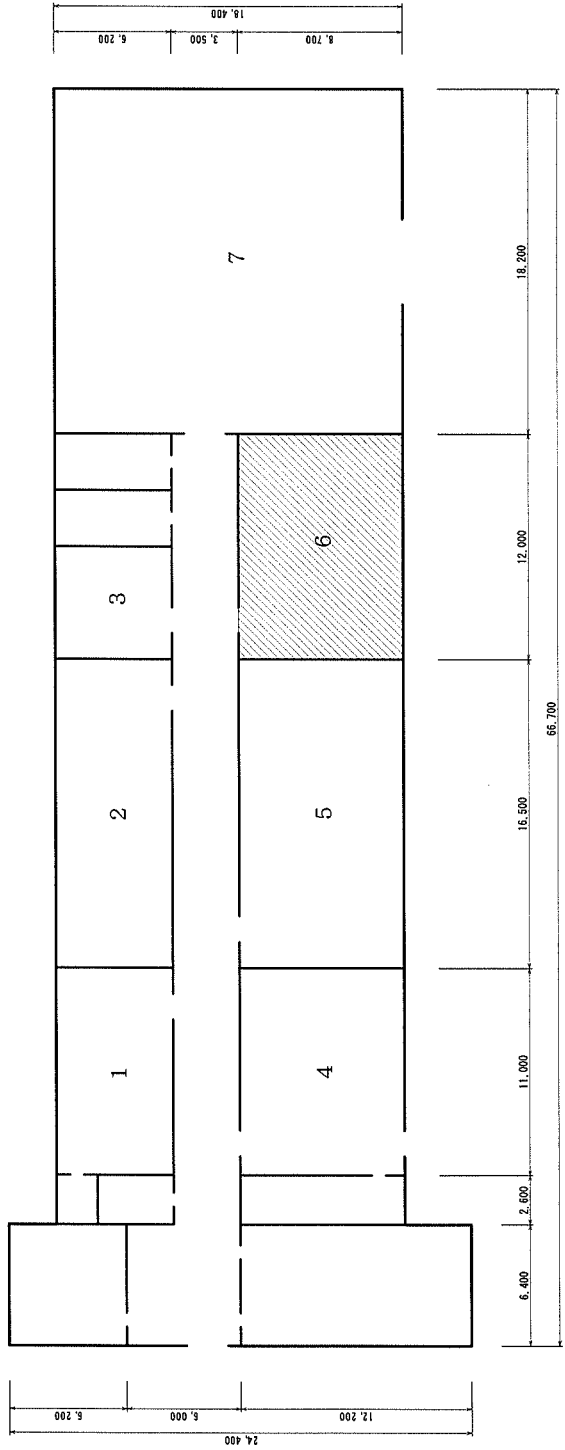


Educational Building (Block 4)

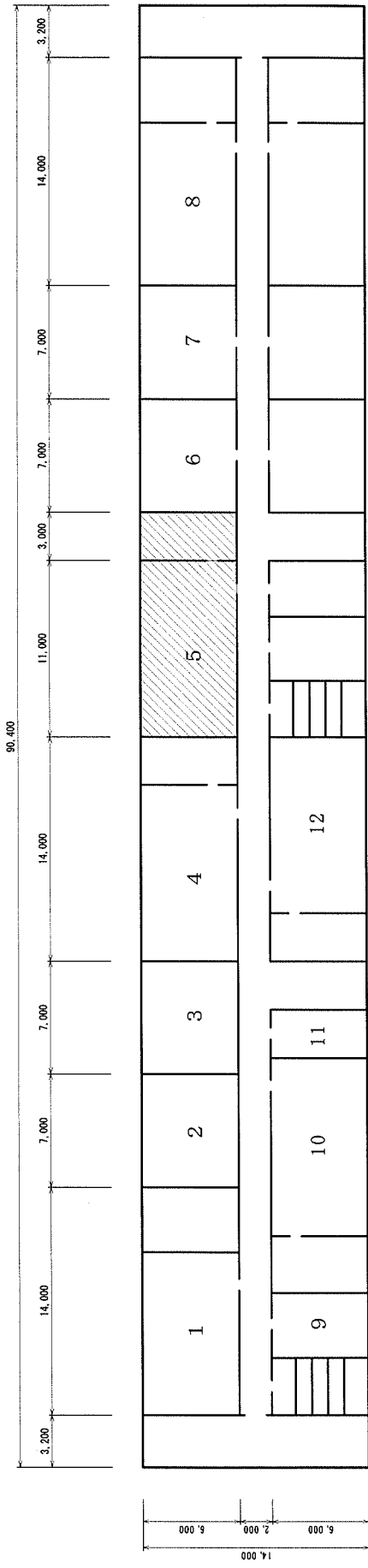


Educational Building (Blocks 4 and 5) 2nd Floor

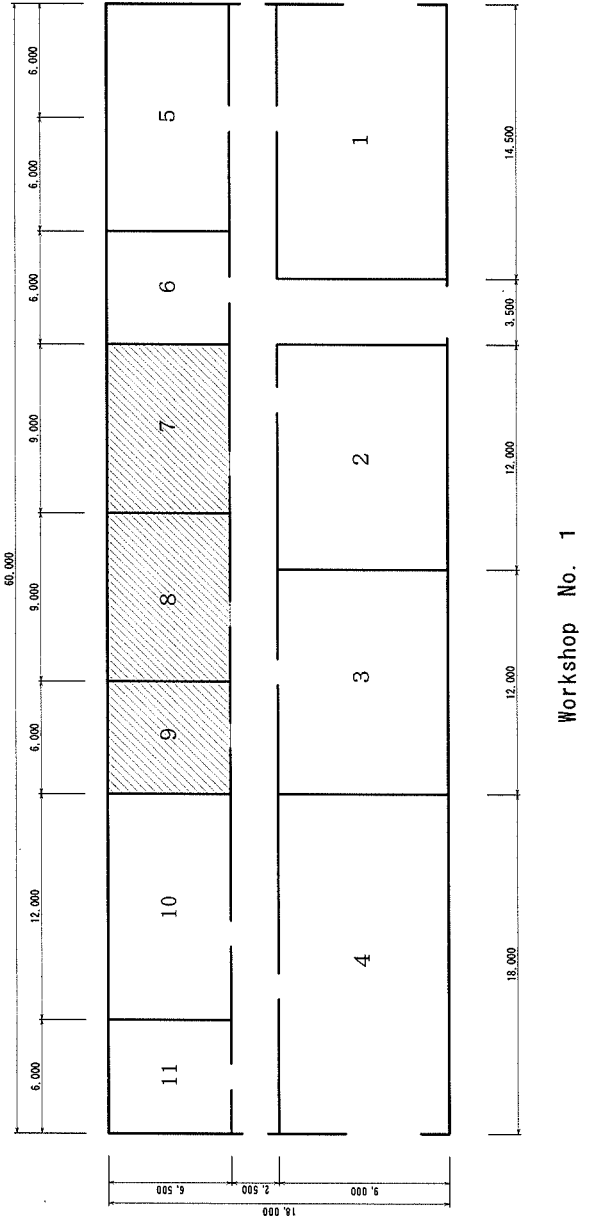
FIG 2-25 Kokand Professional College of Human Services
(Repair and Service of Radio Engineering and Teleequipment course)



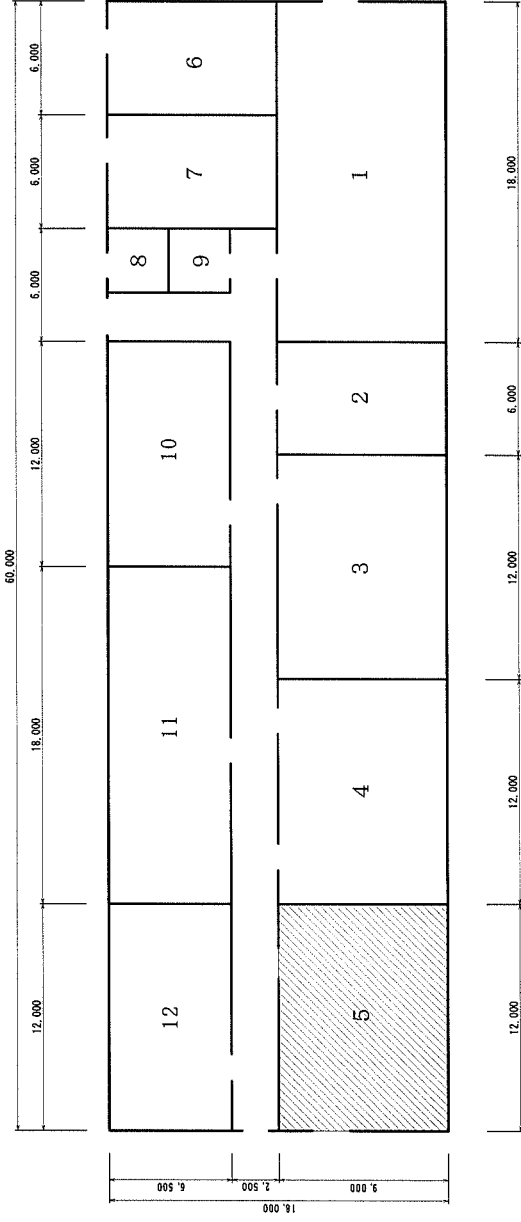
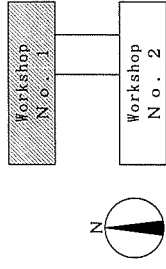
Workshop



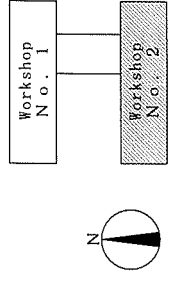
Education Building 1st Floor
FIG 2-26 Bukhara Construction and Municipal Professional College
(Installation of Electric Networks and Equipment course)

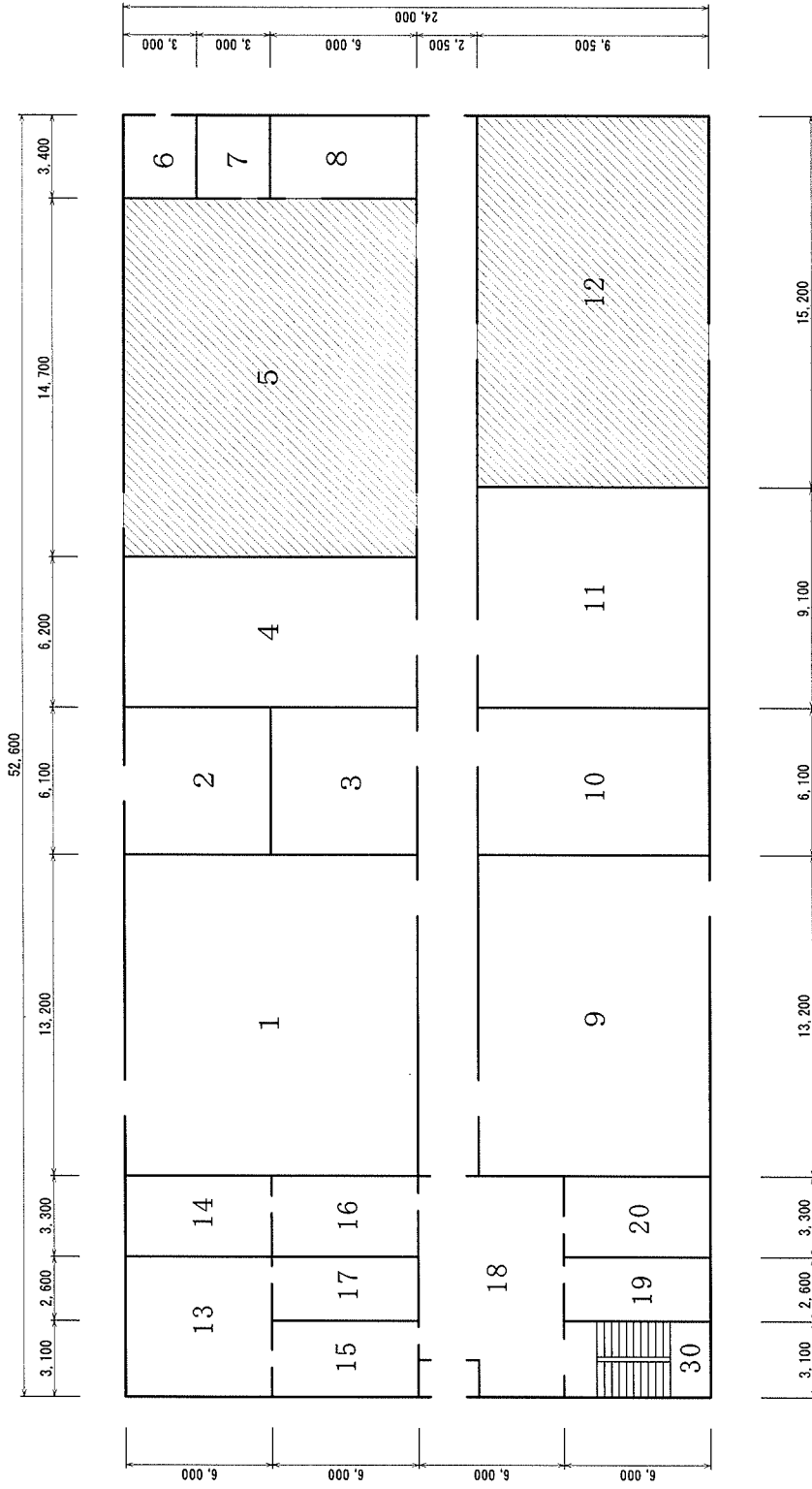


Workshop No. 1



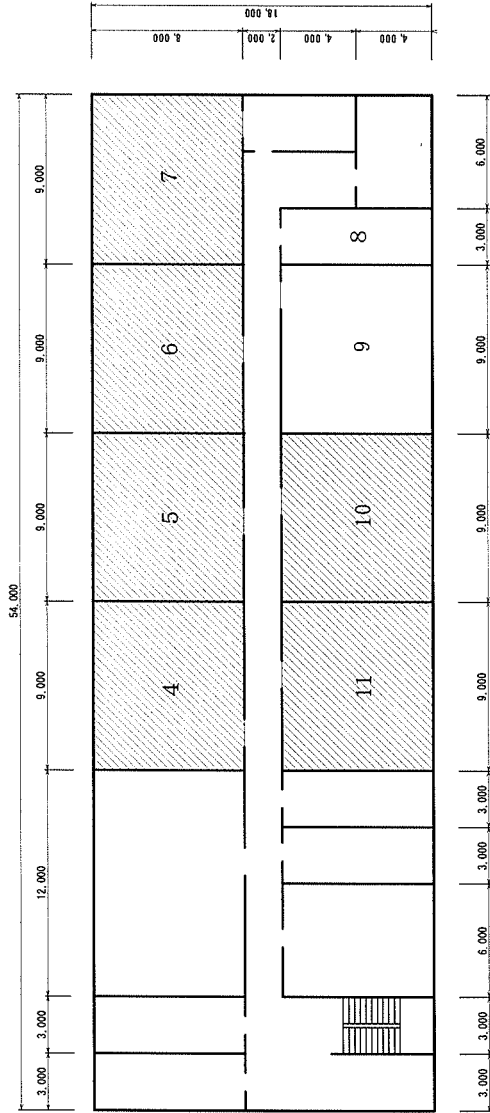
Workshop No. 2
 Beshkent Agriculture Professional College
 (Technology for Preservation of Agricultural Products)



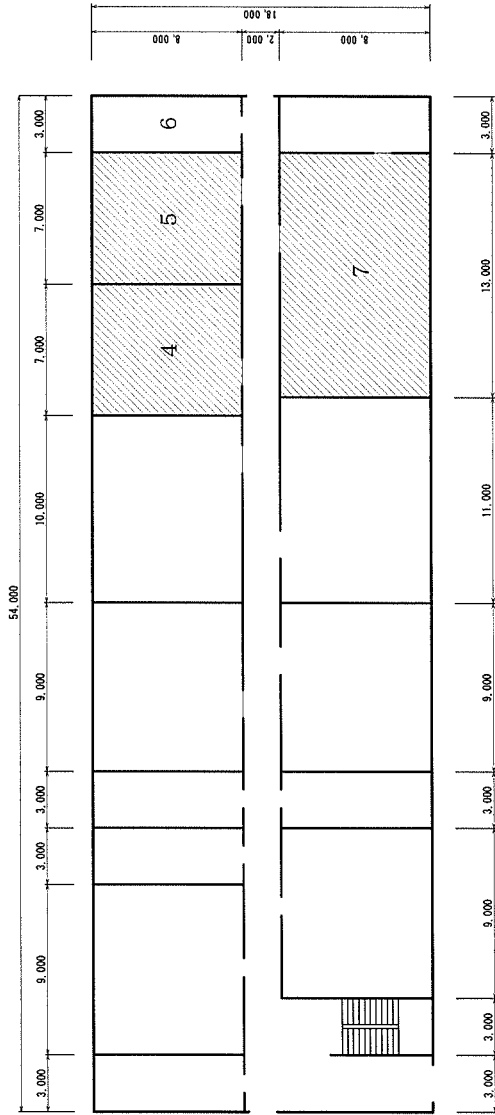
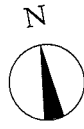


Workshop 1st Floor

FIG 2-28 Urgut Professional College of Construction and National Handicraft
(Joiner's Carpentry and Parquet Works course)

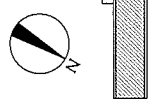
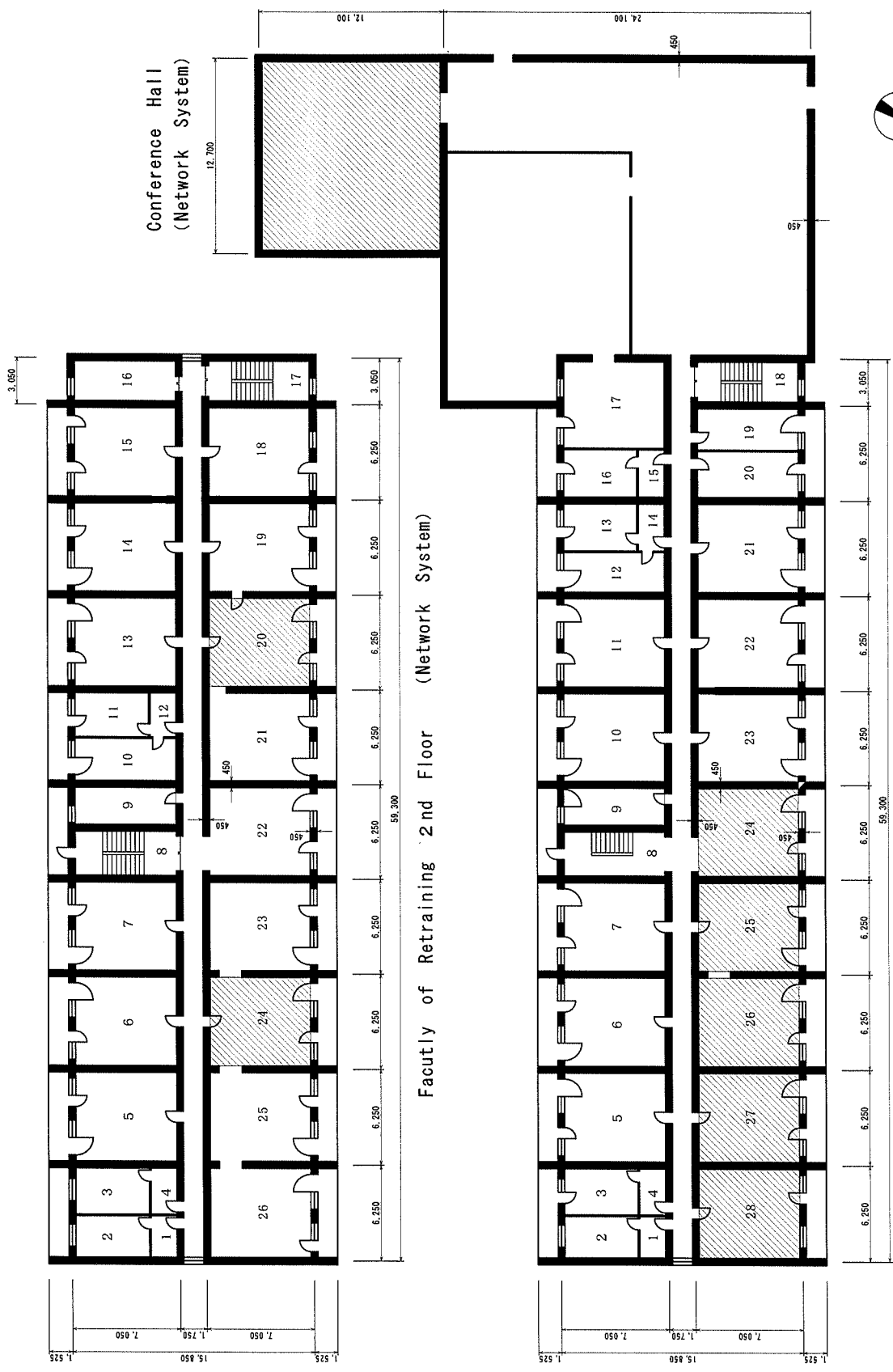


Workshop 1st Floor



Workshop 2nd Floor

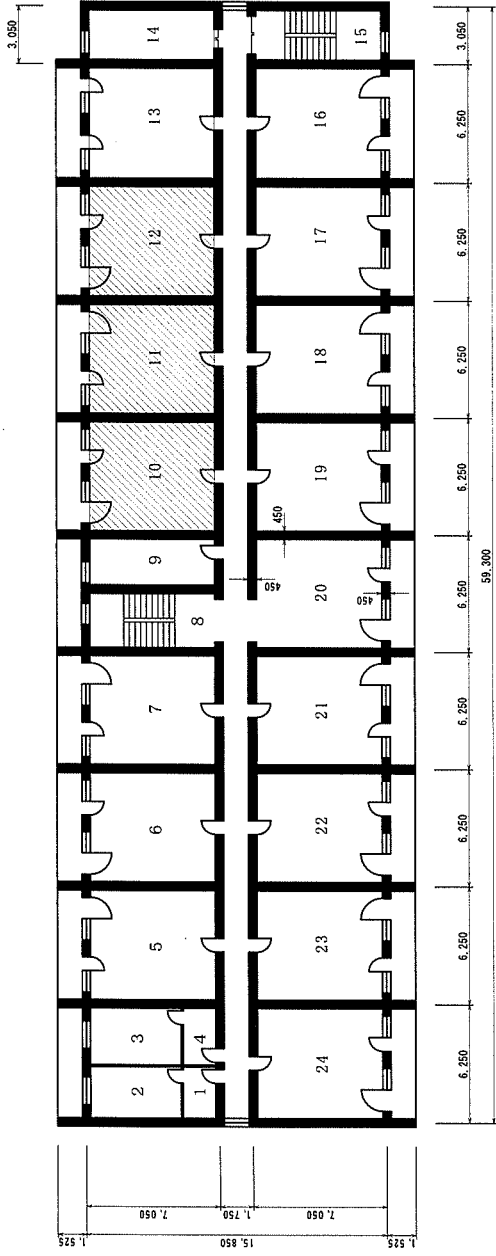
FIG 2-29 Tashkent Technologic Professional College
(Food Processing - bread, sweets, macaronis, confectionery)



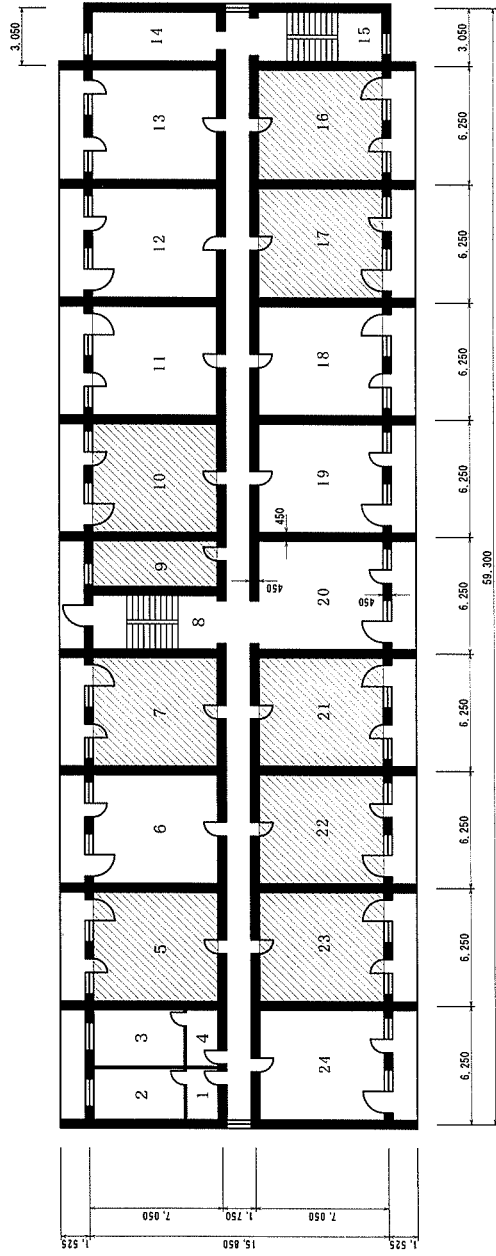
Faculty of Retraining 2nd Floor (Network System)

Faculty of Retraining 1st Floor (Network System, Printing Equipment)

FIG 2-30 Institute for Development of Secondary Specialized and Vocational Education (IDSSVE)



Faculty of Retraining 4th Floor (Network System)



Faculty of Retraining 3rd Floor (Network System)

FIG 2-31 Institute for Development of Secondary Specialized and Vocational Education (IDSSVE)

2-2-4 Implementation Plan

2-2-4-1 Implementation Policy

The objective of this project is utilize grant aid by the Government of Japan to improve the equipment at retraining facilities of the IDSSVE, and nine professional colleges. The CSSVE, acting as the implementing agency, is to avail itself of technical support by signing a contract with a Japanese consultant for planning and designing the implementation of the undertaking, the preparation and distribution of tender documents, review of tenders submitted, management of procurement, and supervision of delivery and installation work. This same implementing agency will contract with a Japanese supplier (or suppliers) determined through the tender process, for procurement of the equipment, necessary fabrication work, transport, and installation, followed by test operation and preparation of the equipment for use. In carrying out the installation work, domestic workers will be employed by the supplier(s) under the supervision of the supplier's technical staff, from the opening of crates to the installation of equipment, while the technical staff personnel themselves will undertake subsequent wiring, installation and assembly of small items, test operation, adjustment and related tasks. When convenient and suitable, a local technician may be employed, depending on the nature of the equipment in question. The organization for the installation is as shown in FIG. 2-32.

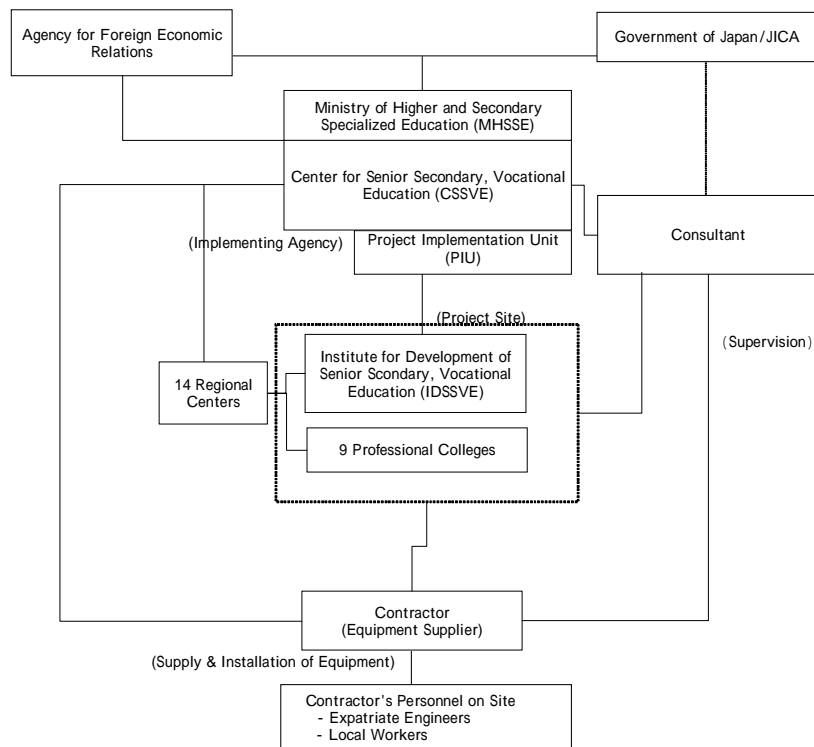


FIG 2-32 Organization for Project Implementation

2-2-4-2 Implementation Conditions

(1) At Time of Importation

When equipment is imported into Uzbekistan, Customs officials may ask for a type certification as a way of checking on the safety of operation of the equipment. Either a surveyor should be asked to furnish a type certification before shipment, or exemption from submission of such documents to Customs should be sought by the recipient, by applying for approval according to UZGOSTANDARD, at a bonded warehouse in the case of small equipment or at the installation site in the case of large equipment. Although it has been said that for grant-aid projects such as this one, type certificates are normally not requested, but in the event that they are provided, the cost of having them issued is borne by the recipient. Therefore CSSVE as the implementing agency should discuss this matter with the appropriate officials in advance and take any necessary steps, to ensure that there is no delay in the procurement process.

(2) At Time of Installation

Training of key personnel by an expert dispatched from Japan will be going on at the IDSSVE where the computer network equipment and printing machinery are to be installed. The place where the installation will be made is not the same, however, as study rooms, so that installation work can be carried out at any time.

Further, the pilot professional colleges use a two-semester system. The first is September-December (17 weeks) and the second January-June (23 weeks). July and August are vacation months. When the vendor is to do installations at the professional colleges, it will be necessary to contact each PC in advance to ensure that the installation, test and set-up work can be done at a proper time, and not interfere with instruction and practical training.

2-2-4-3 Scope of Works

Scope of works is to be divided between the Japanese and Uzbekistan governments as follows.

Japanese responsibility

- 1) Procurement and transport and delivery to the project sites of the planned equipment
- 2) Installation of equipment, test operation, adjustments, instruction in operation and maintenance
- 3) Consulting services related to implementation planning, preparation of tender documents, supervision of

the tender, and supervision of construction

Uzbekistan responsibility

- 1) Improvements to buildings (interior work, floors, ceilings, dividers etc.)
- 2) Electric work (distribution panel, lighting etc.)
- 3) Water supply and drainage work
- 4) Ventilation and air conditioning work
- 5) Telecommunications work
- 6) Procurement of furniture, accessories etc.
- 7) Procurement of reagents and chemicals, consumables

2-2-4-4 Consultant Supervision

Based on the policy of the Japanese government for grant aid projects, and the consulting contract, with due consideration given to the basic design, the consultant is to undertake the implementation plan and supervision of procurement works; provide technical assistance for the Uzbekistan government; carry out on behalf of Uzbekistan the tasks required in Japan for grant aid assistance; strive to ensure the smooth realization of the work of the project; and otherwise work to ensure accomplishment of the objective of the project. This obligates the consultant to form a project team that to provide seamless execution of required tasks from start to completion of the project and ensure that it is completed on schedule and as required. In concrete terms this means that the consultant reviews the technical specifications, in detail, of the equipment to be supplied at the implementation stage; prepares the tender documents; holds the bid opening meeting on behalf of the implementing agency; at the stage of supervision of construction and installation, the consultant also assists Uzbekistan side in the meetings or actions for purposes of confirmation and discussion with the contractor supplying the equipment and services, and of approving drawings. Further, the consultant has representative personnel present when equipment is inspected prior to shipment, to further ensure smooth procurement of equipment. On the occasion of construction work in Uzbekistan, the consultant's personnel will be present as supervisors of installation on spot basis and will make inspections at the time of take-over of the equipment by the Uzbekistan agency, to further ensure smooth completion of work.

2-2-4-5 Procurement Plan

(1) Procurement Method

Particularly important among the equipment to be supplied are, in addition to the matter of the language of the software for the computers and peripherals, the matter of spare parts and consumables supply, and repair and maintenance of the equipment. For this reason the equipment procured will be from manufacturers that can provide maintenance services and post-sales customer support from offices in Uzbekistan. Regarding agricultural machinery, it is desirable that when the tractors are procured, the attachments are of domestic manufacture, so that out of consideration of the frequency of use and frequency of maintenance work, that they can be kept in good order and working at the regional-city locations of the professional colleges. Equipment that can be sought from third-country suppliers and the reasons for this are as in Table 2-11 on the following page.

(2) Method of Transport

Multimodal transport will be the rule when equipment is procured from Japan or Europe, and sent to Uzbekistan via either the Russia route, the China route, the Iran route, the European route, and so on. Transport conditions in these cases would be as follows.

1) Russia route

Landing at a Far Eastern port Procedures for bonded transport for goods in transit (about one day at Customs) Transfer to freight cars (4-7 days) Rail transport via Siberia; arrival at Kazakh border (10 days) Procedures for bonded transport for goods in transit Rail transport via Kazakh; arrival at Uzbek border (7 days) Document check at border Passes through Customs at Tashkent freight yards (1 day) Transport within the city (1 day or 2 days). Transport from a Japanese port to arrival in Tashkent would require 40-45 days.

2) China route

Landing at a Chinese port is followed by rail transport. From a Japanese port to Tashkent would require within 40 days, a shorter duration than via Russia. Container transport would be used because of the difference in gauge at the China-Kazakh border.

TABLE 2-11 Equipment to be Purchased from Third-Countries

No.	Description	Qty	No.	Description	Qty	No.	Description	Qty
Category A			Category C			Category C		
NU1102	Standard lathe	5	NA1008	Vaginal mirror for female animals	5	BE1045	Trocar	5
NU1203	Universal milling machine	1	NA1009	Endoscopes	1	BE1048	Syringe-injectors in set	5
NU1204	CNC milling machine	1	NA1010	Thermometers for animals	13	BE1053	Model of cow skeleton	1
NU1208	Milling machine, vertical	5	NA1011	Histological preparation set	1	BE1054	Model of cow internal organs, muscular system	1
NU1209	Milling machine, horizontal	1	NA1012	Drug shooting pistol for animals	1	BE1056	Special instrument for piercing, branding, tattooing of animals	1
NU1211	Grinding machine, cylindrical type	1	NA1014	Tool set for measuring animal size	1	BE1061	Shedding units for horses, big-horn animals, pigs, dogs	1
AS1025	Standard lathe	1	NA1015	Percussion hammer with pleximeter	2	BE1062	Pregnancy calendar for agricultural animals	1
CM0004	Video authorization system	9	NA1016	No-needle injector	5	BE1063	Pincers for nose	1
FC1107	Scanner Plane-table	1	NA1019	Cage for laboratory animals	2	BE1064	Obstetrical loops	1
FC2101	Film Printer (Imagesetter)	1	NA1020	Magnetic probes	1	BE1066	Syringe catheters in set	1
FC2102	Film Processor	1	NA1022	Veterinary- obstetrical tool kit	1	BE1068	Auto-feeder	1
FC2103	PS Plate Printer	1	NA1023	Forceps for cutting hoofs	1	BE1073	Wool cutters/shearing device in set with grinders	13
FC2104	PS Plate Processor	1	NA1024	Hoof examination instrument	1	TA2010	Polishing machine for grain	1
FC2201	Printing Machine, Full Color	1	NA1025	Tool kit, surgical large	1	TA2011	Sieving machine for grain	1
FC2202	Printing Machine, One Color	1	NA1026	Probe for nasopharynx (nose/throat)	1	TA2013	Peeler machine	1
FC3001	Folding Machine, Big	1	NA1027	Probe for oesophagus	1	TA2016	Roller mill	1
FC3004	Select Machine for writing books	1	NA1028	Metal detector	1			
FC3006	Thread Sewing Machine	1	NA1029	Device for testing /assessing milk quality	1	Category D		
FC3007	Wire Sewing Machine	1	NA1030	Device for taking blood	1	F10001	Proxy/Mail Server	1
FC3010	Thermo binding Machine	1	NA1031	Device for inhalation	1	F10002	Fire Wall /DNS Server	1
FC3012	1-knife Cut Machine for big sheets	1	NA1032	Device for mastitis milk	1	F10003	Network Computer	1
			NA1033	Device for identifying trichinosis	1	F30001	Computer	2
			NA1039	Stetho-phonendoscope	2	F40001	Computer	1
			NA1043	Surgery table for small animals with light stand	1	F50001	Computer	1
			NA1045	Trocar	5	F60001	Computer	1
			NA1048	Syringe-injectors in set	5	F70001	Computer	1
			NA1052	Cow model for insemination	1	FA0001	Server Computer	1
			NA1053	Model of cow skeleton	1	FA0002	Computer	1
			NA1054	Model of cow internal organs, muscular system	1	FC1101	Server Computer	1
			NA2001	Soil sieve	1	FC1102	Computer	2
			NA2004	Pot-soil heating apparatus	6	FC1201	Computer	3
			NA2007	Soil compaction testing apparatus	1	FD1001	Server Computer	1
			NA2008	Soil auger	1	FD1002	Computer	4
			NA2009	Soil color chart	1	FD1006	Computer(Notebook type)	2
			NA2012	Sulphate test strips	1	FD2001	Computer/Server Windows	1
			NA2014	Hydroponics complete analysis kit	1	FD2002	Computer/Work Station	13
			NA2016	Soil moisture meter with soil moisture blocks	1			
			NA2018	Soil Thermometer	6	Category E		
			NA2021	Colorimeter	1	F10005	UPS	3
			NA2022	Penetrometer	1	F10006	Laser printer	1
			BE1002	Apparatus for electric massage	1	F10008	HUB A	1
			BE1007	Big pathologicoanatomic tool kit	1	F10009	HUB B	9
			BE1008	Vaginal mirror for female animals	5	F10010	Modem	2
			BE1009	Endoscopes	1	F30005	Scanner	1
			BE1010	Thermometers for animals	13	F30006	Color Printer	1
			BE1011	Histological preparations set	1	F40002	Laser printer	1
			BE1012	Drug shooting pistol for animals	1	F50002	Laser printer	1
			BE1014	Tool set for measuring animal size	1	F60002	Laser printer	1
			BE1015	Percussion hammer with pleximeter	2	F70002	Laser printer	2
			BE1016	No-needle injector	5	FA0003	UPS	1
			BE1019	Cage for laboratory animals	2	FA0004	Laser Printer	1
			BE1020	Magnetic probes	1	FC1103	UPS	3
			BE1022	Veterinary- obstetrical tool kit	1	FC1108	Printer for color testing	1
			BE1023	Forceps for cutting hoofs	1	FC1110	Laser Printer A4	1
			BE1024	Hoof examination instrument	1	FC1111	Printer Color A3	1
			BE1025	Tool kit, surgical large	1	FC1202	UPS	3
			BE1026	Probe for nasopharynx (nose/throat)	1	FC2205	Digital Printer A3	1
			BE1027	Probe for oesophagus	1	FD1004	UPS	5
			BE1028	Metal detector	1	FD1007	Scanner A3	1
			BE1029	Device for testing /assessing milk quality	1	FD1009	Laser Printer, Color	1
			BE1030	Device for taking blood	1	FD1012	CD-ROM (Writer)	2
			BE1031	Device for inhalation	1	FD2003	UPS	14
			BE1032	Device for mastitis milk	1	FD2004	Laser printer	1
			BE1033	Device for identifying trichinosis	1			
			BE1039	Stetho-phonendoscope	2			
			BE1043	Surgery table for small animals with light stand	1			

No.	Description	Qty
Category B		
NU2013	Oxygen gas cylinder	6
NU2014	LPG/butane gas cylinder	6
NA1034	Portable disinfections unit	1
NA1040	Table for instruments	1
NA1041	Shelf for instruments	1
AS1014	Four-wheel tractor	1
AS1015	Three-wheel tractor	1
AS1017	Disk harrow	1
AS1018	Vegetable seeding-machine	1
AS1019	Spreader of mineral fertilizers	1
AS1020	Cultivator	1
AS1021	Subsoil cultivator	1
AS1022	Sprayer for pest control	1
AS1023	Potato digger	1
AS1024	Rotor mowing-machine	1
BE1035	Galvanized table necrotomy of big animals	1
BE1040	Table for instruments	1
BE1041	Shelf for instruments	1

No.	Description	Qty
Category C		
UH1201	Head, sagittal section	1
UH1202	Brain, arrangement	1
UH1205	Spinal cord and nerves	1
UH1206	Structure of eye	1
UH1207	Structure of ear	1
UH1209	Stomach, external and internal surface	1
UH1220	Organs in torso	1
UH1221	Male sexual organs	1
UH1222	Female sexual organs	1
UH1228	Lymphatic system	1
UH1301	Universal trainer	1
UH1303	Heart	1
UH1305	Trunk muscles	1
UH1401	Human skeleton (male and female)	1
UH1402	Skull	1
UH1503	Funny-bone and muscles	1
UH1504	Hand with adjoined muscles and nerves	1
UH1507	Trunk	1
UH2105	Newborn bathing and nursery care trainer	1
NA1002	Apparatus for electric massage	1
NA1007	Big pathologicoanatomic tool kit	1

Explanation of Category:

Category A: Some European makers may produce similar equipment satisfying the required specification with price in the same range.

Category B: In terms of maintenance, it is recommendable to purchase the products in the local market, including those of third-country origin.

Category C: In order to secure competition in tendering, third-country products may be purchased because the number of Japanese manufacturers is limited.

Category D: In terms of language and future version-up support particularly for computers, it is recommendable to purchase third-country products that are usually based on global supply network.

Category E: Components of computer network system need to be procured from the same source with computers.

3) Iran route

Landing at Bandar Abbas, followed by trailer transport. The duration of the transport period is shortest via this route, but there is a substantial risk in that road transport may present problems. Goods from Southeastern or other factories are generally transported via this route.

4) European rail transport route

When a shipment of goods from Europe, in small quantities, are to be carried across many countries, they are collected at a port such as Hamburg and from there sent by rail through Poland, Belarus, Russia, and Kazakhstan. Because the gauge of Polish and Belarus railways differs from each other, the goods have to be transferred at the meeting point. From Hamburg to Tashkent it takes about 3 weeks.

The transport route used is to be determined by the equipment supplier on the basis of his knowledge of handling conditions, seasonal factors and so on, and is a matter of the supplier's responsibility.

2-2-4-6 Implementation Schedule

The process of implementation of this project is as shown in FIG. 2-33. Assuming that it progresses without delays, the total duration from the date of signing of the E/N would be about 14 months.

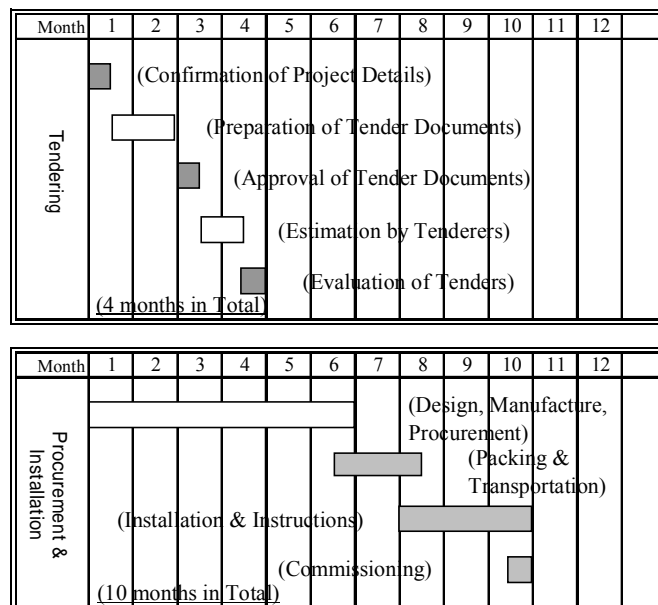


FIG 2-33 Project Implementation Schedule

In regard to making delivery of the equipment, the equipment requiring on-site installation is as shown in Table 2-12 on the following pages. The tasks required are classified as follows.

- A. Equipment requiring installation and/or assembly
- B. Equipment for which an explanation of general usage instructions is needed (only in case of explanations by technical personnel)
- C. Equipment for which training is required (in addition to explanations on use, learning of operations by actual practice under supervision of a technician)

English-language operating and maintenance instruction manuals are packed with each piece of equipment, but it is desirable from the viewpoint of effective utilization of the equipment that summarized translations (into Russian or Uzbek) be provided. The equipment in this category is shown in Table 2-12.

2-3 Obligations of the Recipient Country

In implementation of this grant aid project supported by the government of Japan, it is the responsibility or task of Uzbekistan side to do the following.

- 1) Supply documents and information as are required for implementation of the project.
- 2) Move or relocate existing equipment and facilities, and complete architectural work, prior to the start of installation of procured equipment.
- 3) Furnish facilities for the necessary electricity, water, telephone service, drainage etc.
- 4) For the sake of suitable and effective operation and maintenance of equipment procured for this project, to make the necessary budgetary provisions and assignment of human resources.
- 5) Pay the necessary fees or commissions to the Japanese bank handling transfers.
- 6) Exemption of taxes and duties on equipment procured for the project, and guarantee of swift passage through Customs and inland transportation.
- 7) To exempt Japanese companies or individuals employed in the supply of goods and services under an verified contract of Customs and domestic duties and taxes.

TABLE 2-12 On-site Works for the Equipment

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
NU0000	1. Nukus Polytechnic Professional College					
NU1000	1.1 Metalwork					
NU1100	Turnery workshop					
NU1101	Workbench with vice					
NU1102	Standard lathe				To instruct teaching staff by operating the equipment with sample materials.	
NU1104	Vertical drilling machine				Ditto	
NU1105	Muffle furnace					
NU1106	Bench drilling machine				To instruct teaching staff by operating the equipment with sample materials.	
NU1108	CNC lathe				Ditto	
NU1109	Bench grinding machine					
NU1110	Bench lathe				To instruct teaching staff by operating the equipment with sample materials.	
NU1111	Tool set with tool box					
NU1200	Milling workshop					
NU1201	Workbench with vice					
NU1202	Tool grinding machine, handy type					
NU1203	Universal milling machine				To instruct teaching staff by operating the equipment with sample materials.	
NU1204	CNC milling machine				Ditto	
NU1205	Bench drilling machine				Ditto	
NU1208	Milling machine, vertical				Ditto	
NU1209	Milling machine, horizontal				Ditto	
NU1211	Grinding machine, cylindrical type				Ditto	
NU1212	Tool set with tool box					
NU1300	Metal workshop					
NU1301	Workbench with vice, teacher					
NU1302	Workbench with vice					
NU1304	Bench drilling machine				To instruct teaching staff by operating the equipment with sample materials.	
NU1305	Vertical drilling machine				Ditto	
NU1306	Shearing machine				Ditto	
NU1307	Bench grinding machine					
NU1308	High-speed cut-off machine				To instruct teaching staff by operating the equipment with sample materials.	
NU1309	Band sawing machine				Ditto	
NU1310	Pipe bending machine				Ditto	
NU1311	Press brake				Ditto	
NU2000	1.2 Welding					
NU2001	Standard blocks for hardness testing					
NU2002	Hardness tester, Rockwell				To instruct teaching staff by measuring hardness of test pieces.	
NU2003	Hardness tester, Brinell				Ditto	
NU2004	Magnetic flaw detector				To instruct teaching staff by using test pieces with the equipment.	
NU2005	Ultrasonic flaw detector				To instruct teaching staff by using test pieces with the equipment.	
NU2006	Arc welding apparatus				To instruct teaching staff by demonstrating how to use the equipment.	
NU2009	Spot welding apparatus, portable				Ditto	
NU2010	Spot welding apparatus, fixed type				Ditto	
NU2012	Acetylene gas generator				Ditto	
NU2013	Oxygen gas cylinder				To instruct operation method as a part of welding apparatus.	
NU2014	LPG/butane gas cylinder				Ditto	
NU2015	Welding torch and cutting torch in set				Ditto	
NU2016	Gas hose (for oxygen, acetylene, LPG or butane)				Ditto	
NU2017	Acetylene gas reducer				Ditto	
NU2018	Oxygen gas regulator				Ditto	
NU2019	LPG/butane gas regulator				Ditto	
NU2020	Gas torch lighter				Ditto	
NU2021	Gas hose clamp				Ditto	
NU2022	Cart for gas cylinders					
NU2023	Welding rod drying oven					
NU2026	Brazing kit with accessory				To instruct teaching staff by demonstrating how to use the equipment.	
NU2027	Soldering/desoldering with accessory				Ditto	
NU2030	DC arc welding apparatus with accessory				Ditto	
NU2031	CO2 gas welding apparatus				Ditto	
NU2033	Heater for CO2 cylinder					
NU2036	Electrodes/wire					
NU2046	Welding goods					
NU2047	Brazing materials					
NU2049	Soldering material					
UH0000	2. Urgench Medical Professional College					
UH1000	2.1 Pharmacy/Nursing					
UH1100	The model raw of trainers					
UH1101	Trainer for first aid				To instruct teaching staff by demonstrating how to use the equipment.	
UH1103	Trainer for catheterization (male)				Ditto	
UH1104	Trainer for catheterization (female)				Ditto	
UH1200	Solid and relief models					
UH1201	Head, sagittal section					
UH1202	Brain, arrangement					
UH1205	Spinal cord and nerves					
UH1206	Structure of eye					
UH1207	Structure of ear					
UH1209	Stomach, external and internal surface					
UH1211	Kidney					
UH1212	Urinary system					
UH1216	Liver					
UH1217	Liver organization					
UH1218	Inside surface of the small intestine and the large intestine					
UH1220	Organs in torso					
UH1221	Male sexual organs					
UH1222	Female sexual organs					
UH1227	Skin section					
UH1228	Lymphatic system					
UH1300	The electrified models					

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
UH1301	Universal trainer				To instruct teaching staff by demonstrating how to use the equipment.	
UH1303	Heart				Ditto	
UH1305	Trunk muscles				Ditto	
UH1400	The plastic bones of skeleton					
UH1401	Human skeleton (male and female)					
UH1402	Skull					
UH1500	Models on anatomy					
UH1501	Bronchial tubes					
UH1503	Funny-bone and muscles					
UH1504	Hand with adjoined muscles and nerves					
UH1507	Trunk					
UH1600	The sick nurse affair					
UH1601	Supersonic wave radiator				To instruct teaching staff by operating the equipment with sample materials.	
UH1602	Haemoglobinometer				Ditto	
UH1604	Calorimeter (photoelectric)				Ditto	
UH1605	Newborn nursery apparatus				To instruct teaching staff by demonstrating how to use the equipment.	
UH1606	Stretcher					
UH1607	UV radiator				To instruct teaching staff by demonstrating how to use the equipment.	
UH1608	Sterilizer case					
UH1610	Trainer for muscular injection, venous injection				To instruct teaching staff by demonstrating how to use the equipment.	
UH1611	Electro distiller				Ditto	
UH2000	(Additional Equipment)					
UH2100	Trainers					
UH2105	Newborn bathing and nursery care trainer				To instruct teaching staff by demonstrating how to use the equipment.	
UH2106	Emergency first aid airway suction trainer				Ditto	
UH2107	Newborn vital signs demonstrator				Ditto	
UH2108	Childbirth trainer				Ditto	
UH2200	2.2 Pharmacology					
UH2201	Assaying balance				To instruct teaching staff by demonstrating how to use the equipment.	
UH2202	Water bath				Ditto	
UH2203	Electrical centrifuge				Ditto	
UH2211	Organic chemistry set					
UH2212	Magnetic stirring device without heating					
UH2213	Electronic scale					
UH2214	pH-meter and millivoltmeter				To instruct teaching staff by demonstrating how to use the equipment.	
UH2215	Pressure, volume and temperature apparatus				Ditto	
UH2216	Chemical testing equipment				Ditto	
UH2217	Biological microscope					
UH2218	Top table autoclave					
NA0000	3. Namangan Agro-economic Professional College					
NA1000	3.1 Veterinary					
NA1001	Autoclave				To instruct teaching staff by demonstrating how to use the equipment.	
NA1002	Apparatus for electric massage				Ditto	
NA1003	Blood cell counter				Ditto	
NA1004	Analytical balance					
NA1006	Big and small devices for feces of animals (set)					
NA1007	Big pathologic-anatomic tool kit					
NA1008	Vaginal mirror for female animals					
NA1009	Endoscopes					
NA1010	Thermometers for animals					
NA1011	Histological preparation set					
NA1012	Drug shooting pistol for animals					
NA1013	Manometer for animals					
NA1014	Tool set for measuring animal size					
NA1015	Percussion hammer with pleximeter					
NA1016	No-needle injector					
NA1017	Urinary catheter in set					
NA1018	Milking catheter in set					
NA1019	Cage for laboratory animals					
NA1020	Magnetic probes					
NA1021	Biological microscope for students					
NA1022	Veterinary- obstetrical tool kit					
NA1023	Forceps for cutting hoofs					
NA1024	Hoof examination instrument					
NA1025	Tool kit, surgical large					
NA1026	Probe for nasopharynx (nose/throat)					
NA1027	Probe for oesophagus					
NA1028	Metal detector				To instruct teaching staff by demonstrating how to use the equipment.	
NA1029	Device for testing /assessing milk quality				Ditto	
NA1030	Device for taking blood					
NA1031	Device for inhalation					
NA1032	Device for mastitis milk					
NA1033	Device for identifying trichinosis					
NA1034	Portable disinfections unit				To instruct teaching staff by demonstrating how to use the equipment.	
NA1035	Galvanized table necrotomy of big animals					
NA1036	Electronic balance				To instruct teaching staff by demonstrating how to use the equipment.	
NA1037	Alcohol meter					
NA1038	Universal bench for fixing animals					
NA1039	Stetho-phonendoscope					
NA1040	Table for instruments					
NA1041	Shelf for instruments					
NA1042	Surgery table for big animals with light stand					
NA1043	Surgery table for small animals with light stand					
NA1044	Water heating apparatus with thermostat					
NA1045	Trocar					
NA1046	Refrigerator					
NA1047	Centrifuge				To instruct teaching staff by demonstrating how to use the equipment.	

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
NA1048	Syringe-injectors in set					
NA1049	Electrocardiograph					
NA1050	Freezer					
NA1051	Electric oven with time switch					
NA1052	Cow model for insemination				To instruct teaching staff by demonstrating how to use the equipment.	
NA1053	Model of cow skeleton				Ditto	
NA1054	Model of cow internal organs, muscular system				Ditto	
NA2000	3.2 Agronomy					
NA2001	Soil sieve					
NA2002	Electronic balance				To instruct teaching staff by demonstrating how to use the equipment.	
NA2003	Analytical balance					
NA2004	Pot-soil heating apparatus				To instruct teaching staff by demonstrating how to use the equipment.	
NA2005	Desiccators					
NA2006	Cool incubator				To instruct teaching staff by demonstrating how to use the equipment.	
NA2007	Soil compaction testing apparatus				Ditto	
NA2008	Soil auger				Ditto	
NA2009	Soil color chart					
NA2010	Biological microscope					
NA2011	Titration device for chemical analysis of fruits and vegetables				To instruct teaching staff by demonstrating how to use the equipment.	
NA2012	Sulphate test strips					
NA2013	Laboratory pH meter					
NA2014	Hydroponics complete analysis kit				To instruct teaching staff by demonstrating how to use the equipment.	
NA2015	Salinity meter				Ditto	
NA2016	Soil moisture meter with soil moisture blocks				Ditto	
NA2017	Current flow meter				Ditto	
NA2018	Soil Thermometer				Ditto	
NA2019	Spectrophotometer				Ditto	
NA2020	Chromatography				Ditto	
NA2021	Colorimeter				Ditto	
NA2022	Penetrometer				Ditto	
AS0000	4. Asaka Agricultural Professional College					
AS1000	4.1 Operation and maintenance of agricultural machines and equipment					
AS1001	Tractor structure trainer					
AS1002	Diesel engine trainer				To instruct teaching staff by demonstrating how to use the equipment.	
AS1003	Model of fuel system					
AS1004	Model of internal combustion engine, sectioned					
AS1005	Model of 4-timely motor of internal combustion engine, sectioned					
AS1006	Car structure trainer					
AS1007	Model of fuel injection pump					
AS1008	Model of carburetor					
AS1009	Model of starting motor					
AS1010	Model of transmission					
AS1011	Model of clutch					
AS1012	Model of rear axle, sectioned					
AS1013	Working model of rear axle					
AS1014	Four-wheel tractor				To instruct teaching staff by demonstrating how to use the equipment.	
AS1015	Three-wheel tractor				Ditto	
AS1017	Disk harrow				Ditto	
AS1018	Vegetable seeding-machine				Ditto	
AS1019	Spreader of mineral fertilizers				Ditto	
AS1020	Cultivator				Ditto	
AS1021	Subsoil cultivator				Ditto	
AS1022	Sprayer for pest control				Ditto	
AS1023	Potato digger				Ditto	
AS1024	Rotor mowing-machine				Ditto	
AS1025	Standard lathe				Ditto	
AS1026	Desk drilling lathe				To instruct teaching staff by operating the equipment with sample materials.	
AS1027	Arc welding apparatus				To instruct teaching staff by demonstrating how to use the equipment.	
AS1028	Spot welding apparatus				Ditto	
AS1029	Balancing machine				Ditto	
AS1030	Gas welding apparatus				Ditto	
AS1031	Torque wrench					
AS1032	Distilling apparatus				To instruct teaching staff by demonstrating how to use the equipment.	
AS1033	Hydraulic stacker truck				Ditto	
AS1034	Full set of tools for metal soldering				Ditto	
AS1036	Hydraulic jack				Ditto	
AS1037	Tire pressure measuring instrument				Ditto	
AS1038	Compressor					
AS1040	Oil pump				To instruct teaching staff by demonstrating how to use the equipment.	
AS1041	Oil bucket pump				Ditto	
AS1042	Riveter				Ditto	
AS1043	Battery charger				To instruct teaching staff by operating the equipment with sample materials.	
AS1044	Equipment for repair, assembling and disassembling of tires				To instruct teaching staff by demonstrating how to use the equipment.	
AS1045	Hand mechanized tools set					
AS1046	Grease gun					
AS1047	Lubricator				To instruct teaching staff by demonstrating how to use the equipment.	
KO0000	5. Kokand Professional College of Human Services					
KO1000	5.1 Public catering					
KO1100	5.1.1 Catering department					
KO1101	Rotary griller				To instruct teaching staff by operating the equipment with sample materials.	
KO1102	Bakery oven				Ditto	
KO1103	Bakery fermentation box				Ditto	
KO1104	Steamer				Ditto	
KO1106	Siphon pump for oil				Ditto	
KO1107	Mixer for forming				Ditto	
KO1108	Molder				Ditto	
KO1109	Mixer for viscous materials				Ditto	
KO1110	Tableware washing machine				Ditto	
KO1113	Fryer				Ditto	

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
KO1114	Juicer				Ditto	
KO1115	Hot storage box					
KO1117	Refrigerator					
KO1118	Range with oven				To instruct teaching staff by operating the equipment with sample materials.	
KO1119	Grille				Ditto	
KO1121	Braising pan				Ditto	
KO1122	Steamer				Ditto	
KO1200	5.1.2 Teaching bread-roll department					
KO1205	Dividing and making roll dough machine				To instruct teaching staff by operating the equipment with sample materials.	
KO1208	Kneader for dough				Ditto	
KO1210	Reverse sheet					
KO2000	5.2 Repair and service of radio engineering and tele-equipment					
KO2100	5.2.1 Study room of radio electric devices					
KO2107	1 Laboratory stands " electronic amplifiers "				To instruct teaching staff by demonstrating how to use the equipment.	
KO2107	2 Oscilloscope				To instruct how to measure as a part of trainer apparatus.	
KO2107	3 Voltmeter				Ditto	
KO2107	4 Functional generator				To instruct how to operate as a part of trainer apparatus.	
KO2108	1 Stand " Radio reception/sending devices "				To instruct teaching staff by demonstrating how to use the equipment.	
KO2108	2 LF Signal Generator				To instruct how to operate as a part of trainer apparatus.	
KO2108	3 Volt meter				To instruct how to measure as a part of trainer apparatus.	
KO2108	4 Frequency Counter				Ditto	
KO2108	5 Oscilloscope				Ditto	
KO2108	6 RF Signal Generator				Ditto	
KO2113	1 Stand " Pulse digital engineering "				To instruct teaching staff by demonstrating how to use the equipment.	
KO2113	2 LF Signal Generator				To instruct how to operate as a part of trainer apparatus.	
KO2113	3 Volt meter				To instruct how to measure as a part of trainer apparatus.	
KO2113	4 Oscilloscope				Ditto	
KO2113	5 Frequency Counter				Ditto	
KO2116	1 Stand " Amplifiers of a constant current "				To instruct teaching staff by demonstrating how to use the equipment.	
KO2116	2 LF Signal Generator				To instruct how to operate as a part of trainer apparatus.	
KO2116	3 Volt meter				To instruct how to measure as a part of trainer apparatus.	
KO2116	4 Oscilloscope				Ditto	
KO2117	1 Circuit of power supplies				To instruct teaching staff by demonstrating how to use the equipment.	
KO2117	2 Volt meter				To instruct how to measure as a part of trainer apparatus.	
KO2117	3 Oscilloscope				Ditto	
KO2200	5.2.2 Study room of " Radio engineering and TV bases "					
KO2203	1 Unwrapped breadboard model of the TV set				To instruct teaching staff by demonstrating how to use the equipment.	
KO2203	2 Color Pattern Generator				To instruct how to measure as a part of trainer apparatus.	
KO2203	3 Sweep Generator				Ditto	
KO2204	Video recorder				To instruct teaching staff by demonstrating how to use the equipment.	
KO2205	Cassette tape recorder				Ditto	
KO2206	Amplifier (15 W)					
KO2207	Columns (15 W)					
KO2208	Radio-receiver					
KO2212	Video camera				To instruct teaching staff by demonstrating how to use the equipment.	
KO2216	Oscillograph 100 MHz				Ditto	
KO2218	Spectral multi meter				Ditto	
KO2220	Digital L, C, R measurement				Ditto	
KO2223	Power supply					
KO2225	Universal tester for diodes and transistors				To instruct teaching staff by demonstrating how to use the equipment.	
KO2233	Color TV set					
KO2235	Lamp-transistor TV set					
KO2300	5.2.3 Workshop on teleradio apparatus repairs					
KO2301	Autotransformer					
KO2303	Radio repairs tool sets					
KO2305	Oscillograph				To instruct how to measure as a part of trainer apparatus.	
KO2308	Welder apparatus of weld				To instruct teaching staff by demonstrating how to use the equipment.	
KO2309	Drilling machine tool					
KO2310	Signal generator				To instruct teaching staff by demonstrating how to use the equipment.	
KO2311	Metal joiner's bench					
KO2314	Desk lathe				To instruct teaching staff by operating the equipment with sample materials.	
KO2320	Tester					
KO2322	Functional generator				To instruct teaching staff by demonstrating how to use the equipment.	
BU0000	6. Bukhara Construction and Municipal Professional College					
BU1000	6.1 Installation and repair of equipment for gas supply system					
BU1001	Pressure test apparatus				To instruct teaching staff by demonstrating how to use the equipment.	
BU1002	Gas meter installed in provider					
BU1003	Gas meter installed in house					
BU1004	Equipment for measuring combustion parameter				To instruct teaching staff by demonstrating how to use the equipment.	
BU1005	Hand-operated pipe threader				To instruct teaching staff by operating the equipment with sample materials.	
BU1006	Electrical pipe threader				Ditto	
BU1007	Hand-operated pipe bender				Ditto	
BU1008	Electrical pipe bender				Ditto	
BU1009	Power hacksaw				Ditto	
BU1010	Reciprocating saw				Ditto	
BU1011	Hand-operated pipe cutters				Ditto	
BU1012	Electrical pipe cutters				Ditto	
BU1013	Pipe vice with tripod				Ditto	
BU1015	Hand-operated chain hoist				To instruct teaching staff by demonstrating how to use the equipment.	
BU1016	Flame propagation and stability experimental apparatus				Ditto	
BU1019	Reynolds experimental apparatus				Ditto	
BU1021	Resistant loss measuring apparatus				Ditto	
BU2000	6.2 Installation of electric networks and equipment					
BU2002	Displaced current ampere meters (digital)				To instruct teaching staff by demonstrating how to use the equipment.	
BU2004	Sun batteries				Ditto	
BU2005	Baths with electrode				Ditto	
BU2006	Low voltage power source				Ditto	
BU2012	Indicators of induction magnet field				Ditto	

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
BU2013	Variable transformer					
BU2015	1 AC current motor test bench				To instruct teaching staff by demonstrating how to use the equipment.	
BU2015	2 Volt/Ammeter				To instruct how to measure as a part of trainer apparatus.	
BU2015	3 Tacho Meter				Ditto	
BU2015	4 Load Rheostat				To instruct how to operate as a part of trainer apparatus.	
BU2015	5 3-Phase Load Rheostat				Ditto	
BU2015	6 Watt Meter				To instruct how to measure as a part of trainer apparatus.	
BU2016	1 Electronic Network test bench				To instruct teaching staff by demonstrating how to use the equipment.	
BU2016	2 Megger				To instruct how to measure as a part of trainer apparatus.	
BU2016	3 Clamp Multimeter				Ditto	
BU2016	4 Lux Meter				Ditto	
BU2021	Shop of laboratory resistance				To instruct teaching staff by demonstrating how to use the equipment.	
BU2023	Milliampere meter				Ditto	
BU2025	Complete of capacitors				Ditto	
BU2031	Oscillographs				Ditto	
BU2033	High voltage transformer				Ditto	
BU2034	1 Relay test bench				Ditto	
BU2034	2 Megger				To instruct how to measure as a part of trainer apparatus.	
BU2034	3 Relay Tester				Ditto	
BU2034	4 Multi Tester				Ditto	
BU2034	5 Earth Tester				Ditto	
BU2035	Instruments for demonstration rules of Lenz				To instruct teaching staff by demonstrating how to use the equipment.	
BU2042	Rheostat					
BU2045	1 Load test bench				To instruct teaching staff by demonstrating how to use the equipment.	
BU2045	2 LCR Meter				To instruct how to measure as a part of trainer apparatus.	
BU2045	3 Voltmeter				Ditto	
BU2045	4 Power Factor Meter				Ditto	
BU2045	5 Wattmeter				Ditto	
BU2049	Laboratory thermometers					
BU2050	Thermo resistors on log					
BU2051	Thermopolis					
BU2053	1 Transformers test Bench				To instruct teaching staff by demonstrating how to use the equipment.	
BU2053	2 Wattmeter				To instruct how to measure as a part of trainer apparatus.	
BU2053	3 Voltmeter				Ditto	
BU2053	4 Power Factor Meter				Ditto	
BU2053	5 Load Rheostat				Ditto	
BU2053	6 3-Phase Load Rheostat				To instruct how to operate as a part of trainer apparatus.	
BU2059	Hand drill					
BU2060	Coil winding				To instruct how to measure as a part of trainer apparatus.	
BU2061	Motor sets				To instruct teaching staff by demonstrating how to use the equipment.	
BU2062	Trans kit				Ditto	
BU2063	2 Distribution Assembly Kit				Ditto	
BE0000	7. Beshkent Agricultural Professional College					
BE1000	7.1 Zootechnics					
BE1001	Autoclave				To instruct teaching staff by demonstrating how to use the equipment.	
BE1002	Apparatus for electric massage				Ditto	
BE1003	Blood cell counter				Ditto	
BE1004	Analytical balance					
BE1006	Big and small devices for feces of animals (set)					
BE1007	Big pathologoanatomic tool kit					
BE1008	Vaginal mirror for female animals					
BE1009	Endoscopes					
BE1010	Thermometers for animals					
BE1011	Histological preparations set					
BE1012	Drug shooting pistol for animals					
BE1013	Manometer for animals					
BE1014	Tool set for measuring animal size					
BE1015	Percussion hammer with pleximeter					
BE1016	No-needle injector					
BE1017	Urinary catheter in set					
BE1018	Milking catheter in set					
BE1019	Cage for laboratory animals					
BE1020	Magnetic probes					
BE1021	Biological microscope for students					
BE1022	Veterinary- obstetrical tool kit					
BE1023	forceps for cutting hoofs					
BE1024	Hoof examination instrument					
BE1025	Tool kit, surgical large					
BE1026	Probe for nasopharynx (nose/throat)					
BE1027	Probe for oesophagus					
BE1028	Metal detector				To instruct teaching staff by demonstrating how to use the equipment.	
BE1029	Device for testing /assessing milk quality				Ditto	
BE1030	Device for taking blood					
BE1031	Device for inhalation					
BE1032	Device for mastitis milk					
BE1033	Device for identifying trichinosis					
BE1034	Portable disinfections unit				To instruct teaching staff by demonstrating how to use the equipment.	
BE1035	Galvanized table necrotomy of big animals					
BE1036	Electronic balance				To instruct teaching staff by demonstrating how to use the equipment.	
BE1037	Alcohol meter					
BE1038	Universal bench for fixing animals					
BE1039	Stetho-phonendoscope					
BE1040	Table for instruments					
BE1041	Shelf for instruments					
BE1042	Surgery table for big animals with light stand					
BE1043	Surgery table for small animals with light stand					
BE1044	Water heating apparatus with thermostat					
BE1045	Trocar					
BE1046	Refrigerator					
BE1047	Centrifuge				To instruct teaching staff by demonstrating how to use the equipment.	

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
BE1048	Syringe-injectors in set					
BE1049	Electrocardiograph					
BE1050	Freezer					
BE1051	Electric oven with time switch					
BE1052	Cow model for insemination				To instruct teaching staff by demonstrating how to use the equipment.	
BE1053	Model of cow skeleton				Ditto	
BE1054	Model of cow internal organs, muscular system				Ditto	
BE1055	Drying chamber					
BE1056	Special instrument for piercing, branding, tattooing of animals					
BE1057	Anemometer					
BE1058	Gas analyzer				To instruct teaching staff by demonstrating how to use the equipment.	
BE1059	Hygrometer					
BE1060	Goggles					
BE1061	Shedding units for horses, big-horn animals, pigs, dogs					
BE1062	Pregnancy calendar for agricultural animals					
BE1063	Pincers for nose					
BE1064	Obstetrical loops					
BE1065	Water bath					
BE1066	Syringe catheters in set					
BE1067	Egg incubator					
BE1068	Auto-feeder					
BE1069	Feed mixer					
BE1070	Infra-red lamp with stand					
BE1071	Ultraviolet lamp with stand					
BE1072	Milking machine					
BE1073	Wool cutters/shearing device in set with grinders					
BE2000	7.2 Technology for preservation of agricultural products					
BE2002	Inspection conveyor					
BE2003	Vegetable slicer				To instruct teaching staff by operating the equipment with sample materials.	
BE2004	Frying device				Ditto	
BE2005	Cutting table				Ditto	
BE2007	Can seamer and bottle capper				Ditto	
BE2008	Autoclave				Ditto	
BE2009	Kneader				Ditto	
BE2010	Juicer				Ditto	
BE2011	Juice press				Ditto	
BE2012	Mark printing machine				Ditto	
BE2013	Meat chopper				Ditto	
BE2014	Twin screw mixer				Ditto	
UT0000	8 Urgut Professional College of Construction and National Handicraft					
UT1000	8.1 Joiner's carpentry and parquet works					
UT1001	Thickness Planer				To instruct teaching staff by operating the equipment with sample materials.	
UT1002	Wood Lathe				Ditto	
UT1003	Jointer				Ditto	
UT1004	Tenon Cutting Machine				Ditto	
UT1005	Saw Sharpening Machine				Ditto	
UT1006	Mortising Machine				Ditto	
UT1007	Portable Circular Saw				Ditto	
UT1008	Router Machine				Ditto	
UT1009	Electric Floor Sander					
UT1010	Electric Floor Planer					
UT1011	Electric Floor Polisher					
UT1012	Belt Sander				To instruct teaching staff by operating the equipment with sample materials.	
UT1013	Pedestal Grinder					
UT1014	Portable Electric Planer				To instruct teaching staff by operating the equipment with sample materials.	
UT1015	Circular Saw				Ditto	
UT1016	Spray Gun with Air Compressor				Ditto	
UT1017	Lacquer Sprayer				Ditto	
UT1018	Radial Saw				Ditto	
UT1019	Saw Blade Set					
UT1020	Carpentry Tools Set					
UT1021	Hand Saw					
UT1022	Wood Chisel Set					
UT1023	Jack Plane					
UT1024	Smoothing Plane					
TA0000	9. Tashkent Technologic Professional College					
TA1000	9.1 Food processing (bread, sweets, macaronis confectionary)					
TA1003	Screening machine of flour and sugar					
TA1006	Kneader for dough				To instruct teaching staff by operating the equipment with sample materials.	
TA1008	Dividing and making roll dough machine				Ditto	
TA1012	Bakery oven				Ditto	
TA1013	Macaroni extruder and formation machine				Ditto	
TA1028	Molder				Ditto	
TA1030	Grinding mill for recovery product				Ditto	
TA1031	Bakery oven for cookie				Ditto	
TA1032	Kneader for macaroni dough				Ditto	
TA1033	Cutting machine for wafer				Ditto	
TA1034	Press machine for cookie				Ditto	
TA1036	Mixer for viscous materials				Ditto	
TA1038	Éclair formative machine				Ditto	
TA1039	Kneader for biscuit and cream				Ditto	
TA1041	Emulsion-mixer for batter and wafer paste				Ditto	
TA1042	Waffle baker				Ditto	
TA1043	Coating machine for paste				Ditto	
TA1044	Bakery fermentation box				Ditto	
TA1047	Automatic twist-wrapping machine for cookies and wafers				Ditto	
TA1048	Macaroni dryer				Ditto	

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
TA1049	Reverse sheet					
TA2000	9.2 Operation and maintenance of equipment for food production					
TA2001	Air separator				To instruct teaching staff by demonstrating how to use the equipment.	
TA2002	Vibration separator				Ditto	
TA2003	Disk cleaner for grain				Ditto	
TA2006	Magnetic separator				Ditto	
TA2007	Grain flow meter				Ditto	
TA2008	Dosing mechanism for grain				Ditto	
TA2009	Wet grain pilling machine				Ditto	
TA2010	Polishing machine for grain				Ditto	
TA2011	Sieving machine for grain				Ditto	
TA2013	Peeler machine				Ditto	
TA2014	Bucker.				Ditto	
TA2015	Mixer for foddors				Ditto	
TA2016	Roller mill				Ditto	
TA2017	Threshing machine				To instruct teaching staff by operating the equipment with sample materials.	
CM0000	10. Common Equipment for 9 Professional Colleges					
CM0001	Overhead Projector					
CM0002	Video camera (handy type)					
CM0003	LCD projector with screen				To instruct teaching staff by demonstrating how to use the equipment.	
CM0004	Video Authorization System				Ditto	
CM0007	Mini bus (24 seater)					
C00000	11. IDSSVE					
F00000	11.3 IDSSVE (Faculty)					
F10000	11.3.1 Server section					
F10001	Proxy/Mail Server				To instruct teaching staff by demonstrating how to use the equipment.	
F10002	Fire Wall /DNS Server				Ditto	
F10003	Network Computer				Ditto	
F10005	UPS					
F10006	Laser printer					
F10007	(Local Net equipment)					
F10008	HUB A					
F10009	HUB B					
F10010	Modem					
F20000	11.3.2 Administration office					
F30000	11.3.3 Chair of information					
F30001	Computer				To instruct teaching staff by demonstrating how to use the equipment.	
F30005	Scanner					
F30006	Color Printer					
F40000	11.3.4 Chair of professional methods					
F40001	Computer				To instruct teaching staff by demonstrating how to use the equipment.	
F40002	Laser printer					
F50000	11.3.5 Chair of pedagogic and psychology					
F50001	Computer				To instruct teaching staff by demonstrating how to use the equipment.	
F50002	Laser printer					
F60000	11.3.6 Chair of economy and management					
F60001	Computer				To instruct teaching staff by demonstrating how to use the equipment.	
F60002	Laser printer					
F70000	11.3.7 Chair of public subjects					
F70001	Computer				To instruct teaching staff by demonstrating how to use the equipment.	
F70002	Laser printer					
F80000	11.3.8 Class Rooms(5)					
F80003	Multimedia Projector with Screen				To instruct teaching staff by demonstrating how to use the equipment.	
F80004	OHP					
F80005	Video Eye				To instruct teaching staff by demonstrating how to use the equipment.	
F80007	Blackboard					
F80008	Stand Board					
F90000	11.3.9 Conference Hall(150 seats)					
F90005	Audio Video Set for Hall				To instruct teaching staff by demonstrating how to use the equipment.	
F90012	Video Camera				Ditto	
FA0000	11.3.10 Digitalized Library					
FA0001	Server Computer				To instruct teaching staff by demonstrating how to use the equipment.	
FA0002	Computer				Ditto	
FA0003	UPS					
FA0004	Laser Printer					
FA0005	Multimedia Projector with Screen				To instruct teaching staff by demonstrating how to use the equipment.	
FA0007	Copy Machine A3					
FA0010	TV and Video set					
FA0011	Video Camera				To instruct teaching staff by demonstrating how to use the equipment.	
FA0014	Black Board					
FA0015	Stand Board					
FB0000	11.3.11 Mini Printing Room					
FB0010	Copy Machine A3					
FC0000	11.3.12 Printing House					
FC1000	The shop of preprinting prepare					
FC1100	Designer Section					
FC1101	Server Computer				To instruct teaching staff by demonstrating how to use the equipment.	
FC1102	Computer				Ditto	
FC1103	UPS					
FC1107	Scanner Plane-table				To instruct teaching staff by demonstrating how to use the equipment.	
FC1108	Printer for color testing				Ditto	
FC1110	Laser Printer A4					
FC1111	Printer Color A3					
FC1200	Section of computer composition					
FC1201	Computer				To instruct teaching staff by demonstrating how to use the equipment.	
FC1202	UPS					
FC1205	Assembled Table					
FC2000	The shop of printing					

No.	Description	Site Works			Description of Site Work C	Manual
		A	B	C		
FC2100	Section of making forms					
FC2101	Film Printer (Imagesetter)				To instruct teaching staff by demonstrating how to use the equipment.	
FC2102	Film Processor				Ditto	
FC2103	PS Plate Printer				Ditto	
FC2104	PS Plate Processor				Ditto	
FC2105	Assembled Table					
FC2200	Section of Printing					
FC2201	Printing Machine, Full Color				To instruct teaching staff by demonstrating how to use the equipment.	
FC2202	Printing Machine, One Color				Ditto	
FC2205	Digital Printer A3				Ditto	
FC3000	After printing shop					
FC3001	Folding Machine, Big				To instruct teaching staff by demonstrating how to use the equipment.	
FC3004	Select Machine for writing books					
FC3006	Thread Sewing Machine				To instruct teaching staff by demonstrating how to use the equipment.	
FC3007	Wire Sewing Machine				Ditto	
FC3010	Thermo binding Machine				Ditto	
FC3012	1-knife Cut Machine for big sheets				Ditto	
FC4000	Special equipment					
FC4001	Measuring equipment					
FC5000	Additional equipment					
FC5001	Small cart(2), tables, chairs, shelves					
FD0000	11.3.13 For retraining on information technology					
FD1000	Laboratory of new information technology					
FD1001	Server Computer				To instruct teaching staff by demonstrating how to use the equipment.	
FD1002	Computer				Ditto	
FD1004	UPS					
FD1005	(Network equipment)					
FD1006	Computer(Notebook type)				To instruct teaching staff by demonstrating how to use the equipment.	
FD1007	Scanner A3					
FD1009	Laser Printer, Color					
FD1012	CD-ROM (Writer)					
FD1016	Multimedia Projector				To instruct teaching staff by demonstrating how to use the equipment.	
FD1026	TV and Video set					
FD1028	Video Tape Recorder, Digital				To instruct teaching staff by demonstrating how to use the equipment.	
FD1029	Audio Tape Recorder					
FD1030	Video Camera, Digital				To instruct teaching staff by demonstrating how to use the equipment.	
FD1031	Photo Camera, Digital				Ditto	
FD1033	CD & DVD player					
FD1036	Fax Machine					
FD2000	Specialized Class Rooms(2)					
FD2001	Computer/Server Windows				To instruct teaching staff by demonstrating how to use the equipment.	
FD2002	Computer/Work Station				Ditto	
FD2003	UPS				Ditto	
FD2004	Laser printer					
FD2007	Multimedia Projector				To instruct teaching staff by demonstrating how to use the equipment.	
FD2008	OHP					
FD2009	Video Eye				To instruct teaching staff by demonstrating how to use the equipment.	
FD2010	Black Board					
FD2011	Stand Board					

Legend:

A: Equipment requiring installation or assembly.

B: Equipment requiring general instructions on operation by an engineer.

C: Equipment requiring training (in addition to B above, the equipment is operated by the trainees under the direction of the engineer.

Manuals (operation and maintenance manuals need to be translated into either Russian or Uzbek):

Summarized manual.

Detailed manual.

(Equipment which is supplied under the JBIC project needs no translation because translation is to be prepared by JBIC suppliers)

- 8) To provide to Japanese persons who are to provide services related to the goods and services supplied under authorized contract with courtesies regarding entry to Uzbekistan and during their stay in the country.
- 9) To obtain the necessary approvals, licenses etc. for implementation of the project.
- 10) To ensure Uzbek responsibility for the care and appropriate, effective utilization of the facilities and equipment procured under this project.
- 11) To bear all costs required for the project but not included in the grant aid provided by Japan.

2-4 Project Operation Plan

After the equipment has been delivered and installed, it will be necessary for the implementing agency to adopt the following methods of management and sustained control of the equipment.

- 1) A manual (summarized version) must be prepared for every piece of equipment, for use by instructors and students. It must be suitably comprehensive particularly regarding prevention of damage to the equipment, and safety.
- 2) The identity of the person in charge of each piece of equipment must be established.
- 3) Twice a year a checkup must be made of attachments and parts, with the persons responsible for the equipment present.
- 4) Records must be maintained of the results of periodic checkups and problems that have arisen. Any damage or breakdown must be remedied promptly.
- 5) Small pieces of equipment are to be stored together and the permission of the person in charge is to be required any time they are to be removed from the premises.
- 6) An annual budget must be provided for the expenses of maintenance and control.

Regarding the computer network equipment and printing machinery supplied to IDSSVE's Faculty of Retraining, an increase in personnel as shown in Table 2-13 is needed, to improve the organization for management and maintenance.

TABLE 2-13 Increase in Personnel

Organization/Section	Additionally required manpower
IDSSVE Faculty of Retraining	
Server section	System administrator (1), System engineer (1), WEB-designer (1)
Administration office	Computer operator (1)
Digitalized Library	Computer operator (2), Engineer-programmer (1)
Printing House	Administrator (6), Chief Engineer (4), Designer (2), Printing technician etc. (17), Security guard (4), Computer operator (5)
Information technology (Laboratory)	Computer operator (12)

2-5 Estimated Project Expenses

2-5-1 Project Expenses

The total expenses necessary in the event that this project is realized through the grant aid program of the Japanese government is on the order of 715 million Japanese yen. The allocation of costs between Japan and Uzbekistan, in keeping with the explanation above, is estimated as follows.

(1) Japanese expenses

Estimated Japanese Expenses		Approx. 708 Mil. Yen	
Cost Item		Amount	
Procurement of Equipment	Equipment Costs	636.1	
	Breakdown	Nukus Polytechnic PC	Metalwork 81.1 Welding technology 15.4
		Urgench Medical PC	Nursing 10.1
			Pharmacy 7.2
		Namangan Agro-Economics PC	Veterinary medicine 14.1
			Agronomy 4.3
		Asaka Agricultural PC	O&M agricultural machines & equipment 26.8
		Kokand PC of Human Services	Public catering 19.6
			Repair & service of radio engineering & teleequipment 25.4
		Bukhara Construction and Municipal PC	Maintenance of gas supply equipment 14.8
			Electrical equipment maintenance 22.1
		Beshkent Agricultural PC	Technology for preservation of Agricultural Products 18.1
			Zootechnics 17.2
		Urugut PC of Construction and National Handicraft	Joiner's carpentry and parquet works 18.1
		Tashkent Technologic PC	Food processing (bread, sweets, macaroni) 42.2
			Maintenance of food product processing equipment 38.6
		Common-use Equipment for 9 PCs	AV equipment, vehicle 55.5
Institute for Development of Secondary Specialized, Vocational Education (IDSSVE)	Computer network, printing machines 150.7		
Costs of packing, transportation, etc.	54.8		
Cost of on-site works (installation, training, etc.)	34.9		
Consulting fee for project supervision	37.2		

This cost estimate is provisional and would be further examined by the Government of Japan for the approval of the Grant.

(2) Uzbekistan expenses UZS 62.0 million (JPY 7.8 million)

This amount is composed of the following.

- | | |
|-----------------------------------|------------------------------------|
| 1) Architectural improvements | UZS 26.0 million (JPY 3.2 million) |
| 2) Electrical facilities | UZS 5.0 million (JPY 0.6 million) |
| 3) Plumbing, piping | UZS 5.4 million (JPY 0.7 million) |
| 4) Ventilation, A/C work | UZS 3.7 million (JPY 0.5 million) |
| 5) Fire, disaster prevention work | UZS 7.6 million (JPY 0.9 million) |
| 6) Equipment relocation | UZS 0.7 million (JPY 0.1 million) |
| 7) Other expenses | UZS 14.6 million (JPY 1.8 million) |

In addition to the above, on the occasion of the A/P and payments, in the event that the A/P is amended, payment of a commission to the Japanese bank concerned will be required on the Uzbekistan side. In the event that an A/P is opened via a bank in Uzbekistan, any commission required by this bank also must be paid.

(3) Estimation assumptions, conditions

- 1) Time of estimation: July 2003
- 2) Exchange rates: USD 1 = JPY 119.20; UZS 1 = JPY 0.1224
- 3) Implementation period: Period for detailed design, equipment procurement, and installation work, as indicated in the project schedule (FIG. 2-33)
- 4) Others: This project is to be implemented in accordance with the established system of the Japanese government for grant aid projects

2-5-2 Operating and Maintenance Costs

The annual cost of operating and maintaining equipment in the case of supply of the equipment envisioned in the plan described in this report and as studied by the Study Team is estimated as shown in Table 2-14, JPY

15.43 million (UZS 126 million), including spare parts and consumables. This corresponds to about 0.2 % of the total annual budget of the CSSVE for professional colleges and academic lyceums in fiscal 2002. This increment in expenses will be as of fiscal 2005 if the equipment is supplied as planned, but the budget allocation may be estimated as about 30% of the above sum for the first year.

TABLE 2-14 Costs increased by Implementation of the Project

Organization	Electricity			Consumable *3)		Repair *4)	
	Consumption/year	Unit rate (US\$)	Amount (US\$)	Consumption/year	Amount (US\$)	Consumption/year	Amount (US\$)
Nukus Polytechnic PC	19,200 kWh	0.00796	152.80	1 lot	3,355.70	1 lot	7,273.50
Urgench Medical PC	1,920 kWh	0.00796	15.30	1 lot	419.50	1 lot	2,432.90
Namangan Agro-Economics PC	3,072 kWh	0.00796	24.50	1 lot	713.10	1 lot	2,172.80
Asaka Agricultural PC	3,840 kWh	0.00796	30.60	1 lot	805.40	1 lot	2,785.20
Kokand PC of Human Services	5,760 kWh	0.00796	45.80	1 lot	1,090.60	1 lot	4,463.10
Bukhara Construction and Municipal PC	7,680 kWh	0.00796	61.10	1 lot	864.10	1 lot	4,874.20
Beshkent Agricultural PC	1,920 kWh	0.00796	15.30	1 lot	2,500.00	1 lot	3,926.20
Urugut PC of Construction and National Handicraft	5,760 kWh	0.00796	45.80	1 lot	822.10	1 lot	1,585.60
Tashkent Technologic PC	11,520 kWh	0.00796	91.70	1 lot	4,194.60	1 lot	6,149.30
Institute for Development of Secondary Specialized, Vocational Education	67,200 kWh	0.01155	776.20	1 lot	61,828.90	1 lot	16,073.80
Total			1,259.10		76,594.00		51,736.60

- 1) Valid only for the equipment to be provided under the Project.
- 2) Based on the assumptions of operation hours at 8 hours per day, 48days per year.
For IDSSVE, on the assumption of 160 hours per month.
- 3) Equivalent to 2% of the costs of equipment that need consumable.
- 4) Equivalent to 1% of equipment costs.
- 5) Water is not used much, and is excluded from the running costs.
- 6) E-mail is to be used through existing dial up service, and no additional cost is estimated.
- 7) Currency exchange rate: US\$ 1 = J.Yen 119.20

2-6 Other Relevant Issues

As shown in Table 2-10 the number of sites with buildings where the equipment is to be installed or kept is 10 and the space available for the equipment is considered to be adequate. However, as noted above, expense obligations on the Uzbekistan side will arise in connection with operation and maintenance of equipment, when equipment is installed. As implementing agency, the CSSVE must make necessary budgetary provisions in advance, must carry out the construction work smoothly without delay, and must give considerations to prevention of problems after the project is implemented.

It is indispensable, further, that the human resources assigned to operation and maintenance be increased in connection with the planned computer network system and printing machinery to be installed at IDSSVE, as shown in Table 2-12. Steps must be taken by the CSSVE, with an eye to the project schedule, so that the required additional staff is available and is present at explanations provided by the supplier of the equipment.

CHAPTER 3 Project Evaluation and Recommendations

Chapter 3 Project Evaluation and Recommendations

3-1 Project Effect

The following effects can be expected of implementing this project, which seeks to improve the equipment available for use in retraining instructors and trainers as part of the effort by the Uzbekistan government to attain objectives of national industrial policy, the National Human Resources Development Program's aspects relating to the educational sector, and Cabinet of Ministers Resolution 400's items concerning the development of educational staff for secondary-level schools, and meeting the retraining needs of those schools.

(1) Direct effects

- * Retraining of educational staff for specialized courses at the professional colleges will enable participants in the retraining effort (about 700 persons/year) to learn teaching methods in which current technology is applied.
- * By making educational materials in-house (editing, printing, binding), the IDSSVE will be able to meet the nationwide demand for textbooks and educational materials in the Uzbek language, needed by the participants in IDSSVE retraining courses (about 1,800/year) in a timely manner.
- * By acquisition of state-of-the-art educational materials for the Information Technology courses the IDSSVE will make it possible for secondary-level schools (833 in all) throughout the nation where retrained staff are assigned to make good use of information technology in their teaching.

(2) Indirect effects

- * Educational staff members who have experienced up-grade retraining will be better able to instruct their students (at present, about 540,000) in professional subjects after the staff members have received their certification and have returned to their professional colleges.
- * When the certified instructors return to work they will be able to transmit what they have acquired to their colleagues, achieving a multiplier or cascade effect in retraining.

- * By the use of the increased number and variety of texts written in the Uzbek language, the cascade effect will be made that much more effective and efficient.
- * Improvement of equipment to be used for retraining in instruction for courses of high interest to girls, such as nursing, public catering, and making of bread, pasta and confections, educational opportunities for women will be expanded, and an increase in workforce participation by women can be expected.
- * Through employment in industry after graduation from professional colleges, the college graduates will indirectly diffuse technological knowledge they have acquired to co-workers.

To quantify the above direct effects, with regard to the retraining of specialized-course instructors at Professional colleges, the CSSVE will use a regional retraining programs devised through the regional centers. Further, concerning retraining of education administrators by the IDSSVE, forecasts of results target fulfillment to be realized after implementation of this project are to be made by use of retraining results statistics compiled by the CSSVE and IDSSVE.

3-2 Recommendations

(1) Assurance regarding budgetary measures, and monitoring

The budget for the maintenance and management of the educational equipment at the IDSSVE and the nine professional colleges must be obtained by the CSSVE by application to the Ministry of Finance in the preceding fiscal year. The ministry allocates funds based on budget requests and its decisions. Because the CSSVE is fully responsible for the budget application and control for secondary-level educational institutions the CSSVE must request the funds needed for the maintenance and management of the equipment once it has been delivered and installed, as well as any addition required for personnel expenses related to the equipment. It is said that in general with regard to projects that have been supported by foreign countries, such allocations by the recipient country are given priority. In the case of the present project, subsequent to the signing of official documents for implementation of this project by the governments of Uzbekistan and Japan, Uzbekistan is expected to issue a directive by the Cabinet, in which it is affirmed that the Uzbekistan government would make a budget allocation for its agreed share of expenses (personnel and direct costs) for implementation of this project. This provides a concrete basis for the budget allocation request by the CSSVE.

Such a budgetary measure is taken as a pre-assumption for implementation of the project, as the benefits of the project are to accrue to Uzbekistan over a long period of time and can only be achieved if the equipment is properly maintained and managed. Monitoring of budget allocation and use by Uzbekistan and a periodic report to the Japanese government therefore are in order.

(2) Arranging the organization for operation, maintenance and management of the equipment

If the project is implemented as planned, it is thought that it will be satisfactory if the professional colleges decide to operate, maintain and manage the equipment using existing staff, but at the IDSSVE where new technology is to be introduced in the form of a computer network, and where a printing department is to be established, there will be new manpower requirements. Further, the IDSSVE plans to install security system employing electronic sensors to protect its equipment. Apart from these matters, as stated in the preceding chapter, there will be need for an annual budget and suitable action in connection with the equipment, in the form of preparation of operating manuals, assigning of responsibility, implementation of periodic check-ups and recording relevant information, improvement of storage systems, and of course funds for maintenance and management of the equipment. It is by means of these measures that the equipment will be effectively used, and the effects of that use will be maximized.

(3) Coordination with technical cooperation

Uzbekistan has a history of high economic performance and high educational levels, during the era when it was a part of the Soviet Union. This tradition has provided the industrial sector with a high-quality workforce, but even though in recent years classroom instruction has increased in importance, the aging and obsolescence of educational equipment has come to be a restraining influence on both educators and students, in the context of the now-increased need for technology for production machinery that is of great precision, high in speed, and automated and that is being introduced as part of the process of creating a market economy. The old Russian and East European equipment has been repaired and kept in use for a long period of time, and the skills needed to operate and take care of the equipment exist, but subsequent to attaining independence, it has been only one to two years since new educational equipment such as is widely used in industrialized countries has begun to be introduced into the secondary-level schools, and many instructors do not have familiarity with this new equipment. Provisions have been made for technical personnel from the equipment makers to provide instruction in operation, maintenance and so on of the equipment once it has been installed, for the benefit of the recipient institutions and the educational personnel who are to use and care for the equipment. This too should enable the equipment to be effectively used over the long term.

Further, the CSSVE directly and indirectly has indicated its desire to seek technical cooperation from Japan and other industrially advanced nations, for modernization of professional education. At the time of in-country work by the project team, CSSVE had not firmed up its intentions, but in the event that such practical technical cooperation is provided on a broad basis for the benefit of professional education in Uzbekistan, it would have a multiplier effect with regard to the present project, so that even greater effects could be anticipated.

(4) Strengthening interaction with the industrial sector

Professional education in Uzbekistan in the past had the nature of preparing graduates for planned employment in industry that was organized and managed centrally during the Soviet era. At the time, the professional schools would plan their specialized courses on the basis of the employment plans drawn up by nearby industry, and admissions were managed on this basis. To an extent this system is employed at the newly formed secondary-level professional colleges. At the professional colleges, however, equipment for hands-on use by students is in shortage, and the existing equipment is out of date. This has made it necessary for industry to use on-the-job training and rely less on the educational system for workers' acquisition of knowledge, experience, and skill development.

In the event that this project is implemented, equipment embodying new technology will be acquired by professional colleges. Further, the IDSSVE will acquire printing and related machinery. If the support of industrial concerns that are users of equipment similar to that acquired by the professional colleges can be obtained in connection with the operation and care of the new equipment the effectiveness of use of the equipment will be enhanced and it can be expected that the effects of this project would be greater.

(5) Relation with international agencies and other donor countries

Donor agencies other than Japan are carrying out aid projects for secondary-level education in Uzbekistan, as is mentioned in Chapter 1. These have the objective and involve curriculum development, training in pedagogical techniques using new technology, development of educational materials, and improvement of education equipment in order to bring professional education closer to the level matching operations in industry. It is anticipated that if this project is implemented it will have a synergistic relationship with these other efforts through the joint use of technical information relevant to the use, maintenance and management of the equipment.

Appendices

APPENDIX-1 MEMBER LIST OF THE STUDY TEAM

1-1 Basic Design Study (1)

Mr. Motoyuki UEGAKI	Team Leader	Deputy Director, Office of Technical Coordination and Examination, Grant Aid Management Department, JICA
Ms. Asuka TSUBOIKE	Coordinator	Office of Technical Coordination and Examination, Grant Aid Management Department, JICA
Mr. Wataru SHIGA	Chief Consultant & Project Manager	UNICO International Corporation
Mr. Yasuo SHIBATA	Equipment Specialist	UNICO International Corporation
Mr. Isamu OKUBO	Equipment Specialist	UNICO International Corporation
Mr. Satoru HAMAMOTO	Procurement/ Equipment Specialist	UNICO International Corporation
Mr. Bogdanov VLADIMIR	Interpreter (Russian-Japanese)	UNICO International Corporation

1-2 Basic Design Study (2)

Mr. Yukihiro EJIRI	Team Leader	Senior Assistant to the Managing Director, Office of Technical Coordination and Examination, Grant Aid Management Department, JICA
Mr. Kunihiko TAGUCHI	Grant Aid Cooperation	Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs
Mr. Wataru SHIGA	Chief Consultant & Project Manager	UNICO International Corporation
Mr. Yasuo SHIBATA	Equipment Specialist	UNICO International Corporation
Mr. Isamu OKUBO	Equipment Specialist	UNICO International Corporation
Mr. Mutsumi TABE	Equipment Specialist	UNICO International Corporation
Mr. Satoru HAMAMOTO	Procurement/ Equipment Specialist	UNICO International Corporation
Mr. Bogdanov VLADIMIR	Interpreter (Russian-Japanese)	UNICO International Corporation
Mr. Yuichi OTANI	Assistant Specialist	UNICO International Corporation

1-3 Explanation of Draft Report

Mr. Yukihiro EJIRI	Team Leader	Senior Assistant to the Managing Director, Office of Technical Coordination and Examination, Grant Aid Management Department, JICA
Ms. Asuka TSUBOIKE	Coordinator	Office of Technical Coordination and Examination, Grant Aid Management Department, JICA
Mr. Wataru SHIGA	Chief Consultant & Project Manager	UNICO International Corporation
Mr. Yasuo SHIBATA	Equipment Specialist	UNICO International Corporation
Mr. Bogdanov VLADIMIR	Interpreter (Russian-Japanese)	UNICO International Corporation

APPENDIX-2 STUDY SCHEDULE

2-1 Basic Design Study (1)

Sr. No	Date · YR 2002	Day	Itinerary						
			Official (JICA)		Consultants				
			A - Uegaki	B - Tsuboike	C - Shiga	D - Shibata	E - Bogdanov	F - Okubo	G - Hamamoto
1	11/26	Tue			Lv. Narita - Ar. Tashkent (via Seoul)				
2	11/27	Wed			Meeting with JICA				
3	11/28	Thu			Meeting with CSSVE, IDSSVE				
4	11/29	Fri			Discussion at IDSSVE, meeting with Tashkent Regional Center				
5	11/30	Sat			Meeting among Team Members				
6	12/1	Sun			Tashkent-Fergana by car		Tashkent-Nukus by air		
7	12/2	Mon			Meeting with Fergana Center, visit to Inst. of Politechnic, meeting and site visit at Kokand PC, Kokand-Andijan by car		Meeting with Nukus Center, meeting and site visit at Nukus PC, visit to State Univ.		
8	12/3	Tue			Meeting with Andijan Center and Agri. Inst., meeting and site visit at Asaka PC		Nukus-Urgench by car		
9	12/4	Wed			Asaka-Namangan by car, meeting with Namangan Center, visit to Inst. Of		Meeting with Khorezm Center, visit to First Medical Inst.		
10	12/5	Thu			Meeting and site visit at Namangan PC, visit to Namangan Inst. of Engineering, Textile		Meeting and site visit at Urgench PC		
11	12/6	Fri			Namangan-Tashkent by car		Urgench-Tashkent by air		
12	12/7	Sat			Meeting among Team Members				
13	12/8	Sun	Lv. Narita-Ar. Frankfurt	Data analysis					
14	12/9	Mon	Lv. Frankfurt-Ar. Tashkent	Meeting with Tashkent State Pedagogical Inst., Tashkent Technology Inst.		Tashkent-Samarkand by car, meeting with Samarkand Center			
15	12/10	Tue	Meeting with JICA, courtesy calls to EOJ, CSSVE			Meeting and site visit at Urgut PC, factory visits			
16	12/11	Wed	Courtesy calls to Cab. Min., MHSSE, MOFER, CSSVE, IDSSVE			Visit to Inst. Of Construction, Samarkand-Karshi by car			
17	12/12	Thu	Tashkent-Bukhara, courtesy call to Bukhara Center			Meeting with Kashkadarya Center, visit to Inst. of Economics & Engineering			
18	12/13	Fri	Meeting with Bukhara PC, visit to GOLGAS, Bukhara Inst. of Food and Light Industry			Meeting and site visit at Beshkent PC			
19	12/14	Sat	Bukhara-Tashkent			Karshi-Tashkent by air			
20	12/15	Sun	Meeting among Team Members, Data analysis						
21	12/16	Mon	Discussion at MHSSE, CSSVE			Factory visit (Agri. Machinery)			
22	12/17	Tue	Discussion at IDSSVE, discussion on draft Minutes of Meetings						
23	12/18	Wed	Visit to Tashkent Inst. Of Textile & Light Industry, Signing of Minutes of Meetings			Factory visit (Machine Tools)			
24	12/19	Thu	Report to EOJ, JICA, Lv. Tashkent	Visit to factories (flour mill, warehouse)		Lv. Tashkent	Same as C,D,E		
25	12/20	Fri	Ar. Narita (via Bangkok)	Discussion at IDSSVE		Ar. Narita (via Bangkok)	Market survey		
26	12/21	Sat		Meeting among Team Members			Additional survey		
27	12/22	Sun		Data analysis			Same as C,D,E		
28	12/23	Mon		Discussion at CSSVE			Same as C,D,E		
29	12/24	Tue		Visit to a printing house, meeting at IDSSVE			Lv. Tashkent		
30	12/25	Wed		Discussion at CSSVE			Ar. Narita (via Seoul)		
31	12/26	Thu		Discussion at CSSVE					
32	12/27	Fri		Report to EOJ, JICA, Lv. Tashkent					
33	12/28	Sat		Ar. Narita (via Seoul)					

Abbreviations :

JICA	Japan International Cooperation Agency
EOJ	Embassy of Japan
MOFER	Ministry of Foreign Economic Relations
MHSSE	Ministry of Higher and Secondary Specialized Education
CSSVE	Center for Senior Secodary Vocational Education
IDSSVE	Institute for Development of Senior Secondary Vocational Education
PC	Professional College
Nukus PC	Nukus Politecnic PC
Urgench PC	Urgench Medical PC
Namangan PC	Namangan Agro-economics PC
Asaka PC	Asaka Agricultural PC
Kokand PC	Kokand PC of Human Services
Bukhara PC	Bukhara Construction and Municipal PC
Beshkent PC	Beshkent Agricultural PC
Urgut PC	Urgut PC of Construction and National Handicraft
Tashkent PC	Tashkent Technologic PC

2-2 Basic Design Study (2)

Sr. No.	Date YR 2003	Day	Itinerary							
			Official A - Ejiri (JICA) B - Taguchi (MOFA)		Consultants C - Shiga D - Shibata* E - Bogdanov F - Okubo G - Hamamoto H - Tabe I - Otani** J - Interpreter***					
1	2/4	Tue			Lv. Narita - Ar. Tashkent (via Seoul)				Same as C	
2	2/5	Wed		Meeting with JICA, meeting with CSSVE		Lv. Narita - Ar. Tashkent (via Seoul)			Same as C	
3	2/6	Thu		Discussion at CSSVE, Couetesy call to the World Bank					Site survey	
4	2/7	Fri		Visit to Ministry of Health, discussion at IDSSVE on Printing Machine					Site survey	Lv. Narita - Ar. Tashkent
5	2/8	Sat		Discussion at IDSSVE on Computer Network						Same as H.
6	2/9	Sun		Meeting among Team Members						Same as H.
7	2/10	Mon		Discussion with ESG for Course #14						
8	2/11	Tue		Meeting among Team Members						
9	2/12	Wed		Discussion with ESG for Course #12 and #16						
10	2/13	Thu		Discussion with ESG for Course #6 and #13					Tashkent-Kokand by car, Meeting with Kokand PC, Kokand-Fergana by car	
11	2/14	Fri		Discussion with ESG for Course #3 and #4					Fergana-Asaka by car, Meeting with Asaka PC, Asaka-Namangan by Car	
12	2/15	Sat		Discussion at IDSSVE					Meeting with Namangan PC, Namangan-Tashkent by car	
13	2/16	Sun		Meeting among Team Members						
14	2/17	Mon		Discussion with ESG for Course #1 and #2					Tashkent-Samarkand by car, meeting with Urgut PC	
15	2/18	Tue		Discussion with ESG for Course #9 and #11					Samarkand-Karshi by car, meeting with Beshkent PC, Karshi-Buhara by car	
16	2/19	Wed		Discussion with ESG for Course #10					Meeting with Buhara PC, Buhara-Tashkent by air	
17	2/20	Thu		Discussion with ESG for Course #15 and #8					Tashkent-Urgenchi by air, Meeting with Urgench PC, Urgenchi-Nukus by car	
18	2/21	Fri		Discussion with ESG for Sum-up, visit to a sytems integrator					Meeting with Nukus PC, Nukus-Tashkent by air	
19	2/22	Sat		Discussion with ESG for Course #5 and #7					Data analysis	
20	2/23	Sun		Lv.Narita-Ar.Frankfurt					Meeting among Team Members	
21	2/24	Mon	Lv.Frankfurt-Ar.Tashkent					Discussion at IDSSVE (HQ & Faculty) for Sum-up	Meeting with Tashkent PC, site survey at IDSSVE	
22	2/25	Tue	Meeting with JICA, courtesy calls to EOJ, AFER							
23	2/26	Wed	Discussion with CSSVE, visit to Tashkent Inst. of Textile & Light Industry						Lv. Tashkent-Ar. Narita	
24	2/27	Thu	Discussion at IDSSVE (Faculty)					Lv. Tashkent		
25	2/28	Fri	Discussion at CSSVE, Tashkent PC					Ar. Narita (via Bangkok)		
26	3/1	Sat	Factory visits (Mr. Taguchi: Lv. Tashkent for Tajikistan)							
27	3/2	Sun	Data Analysis							
28	3/3	Mon	Discussion on the Draft Minutes, report to EOJ					Lv. Tashkent		
29	3/4	Tue	Signing Minutes of Meetings, report to JICA, Lv. Tashkent					Ar. Narita (via Seoul)		
30	3/5	Wed	Ar. Narita (via Bangkok)							

Abbreviations :

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MHSSE	Ministry of Higher and Secondary Specialized Education
CSSVE	Center for Senior Secodary Vocational Education
IDSSVE	Institute for Development of Senior Secondary Vocational Education
ESG	Experts Sub-Group
PC	Professional College
Nukus PC	Nukus Politecnic PC
Urgench PC	Urgench Medical PC
Namangan PC	Namangan Agro-economics PC
Asaka PC	Asaka Agricultural PC
Kokand PC	Kokand PC of Human Services
Bukhara PC	Bukhara Construction and Municipal PC
Beshkent PC	Beshkent Agricultural PC
Urgut PC	Urgut PC of Construction and National Handicraft
Tashkent PC	Tashkent Technologic PC

Remarks: * Arrival/Departure at Fukuoka A/P.

** Auxiliary member.

*** To be recruited locally.

Courses:

- #1 Metal Working
- #2 Welding
- #3 Pharmaceutics
- #4 Nursing
- #5 Agronomy
- #6 Veterinary
- #7 O&M of Agricultural Machines and Equipment
- #8 Public Catering
- #9 O&M of Radio, TV, Communication Devices
- #10 Installation and Repair of Gas Supply System
- #11 Installation and Repair of Electric Network Equipment
- #12 Technology of Preserving Agricultural Products
- #13 Zoo-technics
- #14 Joiner's Carpentry and Parquet Works
- #15 Food Processing (breads, macaroni, confectionary)
- #16 O&M of Food Processing Machines

2-3 Explanation of Draft Report

Sr. No	Date YR 2003	Day	Itinerary			
			Official Member		Consultants	
			A - Ejiri, B - Tsuboike		C - Shiga	D - Shibata
1	6/3	Tue	Lv. Narita - Ar. Tashkent (via Seoul)			
2	6/4	Wed	Meeting with CSSVE, JICA			
3	6/5	Thu	Discussions at CSSVE			
4	6/6	Fri	Discussion at IDSSVE (Faculty), with Mr. Arai			
5	6/7	Sat	Data analysis, Meeting among the Team Members			
6	6/8	Sun	Data analysis, Meeting among the Team Members			
7	6/9	Mon	Meeting with Mr. Imamura and Ms. Ikeda, discussion on dispatch of volunteers at JICA Office	Discussions with ESG Members		
8	6/10	Tue	Discussions with ESG Members			
9	6/11	Wed	Discussion on the Draft Minutes at CSSVE, JICA			
10	6/12	Thu	AM: Discussion on the Draft Minutes at CSSVE, PM: Signing of the Minutes, report to MHSSE			
11	6/13	Fri	AM: Report to AFER, EOJ, JICA, PM: Supplementary study, Lv. Tashkent(22:30)			
12	6/14	Sat	Ar. Narita (via Seoul)			

Abbreviations.:

JICA	Japan International Cooperation Agency
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EOJ	Embassy of Japan
AFER	Agency of Foreign Economic Relations
MHSSE	Ministry of Higher and Secondary Specialized Education
CSSVE	Center for Senior Secondary Vocational Education
IDSSVE	Institute for Development of Senior Secondary Vocational Education
ESG	Experts Sub-Group

APPENDIX-3 LIST OF PARTIES CONCERNED IN THE RECIPIENT COUNTRY

<u>Name</u>	<u>Designation</u>
<u>Ministry of Higher and Secondary Specialized Education</u>	
Saidokhror S. GULYYAMOV	Minister
KHUSANOV Djummanazar Khusanovich	First Deputy Minister, Head of CSSVE
BUTAEV S.O.	Head, Personnel & Science Dept.
SHABARSHOVA L.I.	Head, Distance & IT Education
ERIAZAROV S.K.	Deputy Head, External Relations Dept.
SHERMUKHAMEDOV A.T.	Executive Director, "Ustoz" Foundation
<u>Cabinet of Ministers</u>	
KUCHUKBAEV Farid	Chief Specialist, Social Complex
ABDUKARIMOV A.	Head, Education Reform Monitoring Dept.
<u>Agency for Foreign Economic Relations</u>	
KHABIBULLAEV Salombefk	Head, Main Information Analytical Dept.
SHAYAKUBOV Ravshan	Head, Asia Pacific Dept.
KHJIMETOV Makhmud	Chief, Asia Pacific Dept.
<u>Center for Senior Secondary, Vocational Education (CSSVE)</u>	
MAHMUDOVA Shahlo Nasimovna	First Deputy Head
SATTOROV Zafar Muradovich	Head, Foreign Relations Div.
MUSURMANOV Ochil Mutfullaevich	Head, Education Standard Div.
USMONOVA M.	Head, Personnel Dept.
ERGALIEV A. O.	Head, Financial Dept.
NORKULOV A. A.	Head, Textbook & Inf. Analysis Div.
NIMATOV R.	Head, Industrial Training Div.
MIRJALOLOV T.	Chief Expert, Industrial Training Div.
MAMATKULOV A.	Head, PC/AL Procurement Div.
KHORMURODOV A.	Manager, PC/AL Procurement Div.
NARMURAZOV	Head, PC Div.
SHOSALIMOV J.	Deputy Head, PC Div.
ALLAMURATOV S. I.	Deputy Head, Personnel Dept.
NURMURODOV S.	Chief Expert, PC Div.
BATIROV Safarboy	Chief Expert, Construction Div.
USMANOVA M.S.	Training & Certification Div.

Institute for Development of Secondary Specialized, Vocational Education (IDSSVE)

IKRAMOV Abduvakhob	Rector
NISHANOV Akhram Hasanovich	Pro Rector
NARIMOV Shermet	Dean, Faculty of Retraining
MELNIKOV Andrey	Engineer, Information Technology

Regional Center (RC) of CSSVE

RC Tashkent Region

UMARALIEV T.	Head
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RC Tashkent City

AZIMOV M.	Head
CHORIEV Ruzimurat Kungratovich	Deputy Head
TEGAI R. V.	Chief, Personnel/PC Dept.
IGNATIEVA Svetlana Dmitrievna	PC Dept.

RC Fergana Region

GAFUROV Jalkilhol	Deputy Head
ALLABERDIEV Bahram	Deputy Head
SHARIPOV Mahmud	Deputy Chief, Construction Dept.

RC Andijan Region

NAZAROV Muhitdin Nazarovich	Head
HOSHIMOV Abdumalik	Deputy Head

RC Namangan Region

HABIBULLA Ubaidullaev	Head
Husanov Ulugbek	Deputy Head
BAHRITDINOV Olimjon	Deputy Head (Production)
HUSAINOV Ulugbek	Chief, Marketing Dept.
Qambarov Ravshan	Deputy Chief, Construction Dept.
Ubaydullaev	Senior Staff, Construction Dept.

RC Bukhara Region

RAHMATULLAEV Mubin Rahmonovich	Head
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RC Kalakalpakstan Republic

Abdukhalikov Tavvakkal Khamidovich	Head
Kalmuratov Gafur	First Deputy Head
Yakubov E.	Deputy Head

Fayziev Davron Shukhratovich Chief Expert

RC Khorezm Region

Kallandarov Palvan Iskandarovich Head
Nazariy Mir Palvanovich First Deputy Head
Fayziev Davron Shukhratovich Chief Expert

RC Samarkand Region

Kasimov Khusan Deputy Head
Safarov Ahvar Chief, PC Dept.
Akhundjanova Khosiyat Chief, Personnel Dept.
Rustamov T. Deputy Chief, Cruonstction Dept.

RC Kashkadarya Region

Rahimov Ruididdin Qambarovich Deputy Head
Azizov Samariddin Qarshievich Chief Expert, Construction Dept.
Husanov Nurmat ahmedovich Chief, PC Dept.

Tashkent (Mirza Ulugbek) Technologic PC

EMINOV Aschraf Director
PARDAEV Abduraim Deputy Director
KARTASHOVA Lyubovj Ivanovna Chief Educator
PROSENKO V. Teacher

Kokand PC of Human Services

ALIEV Mafruf Director
HASHIMOVA Zarifahan Deputy Director
NASIMOV Nazimshon Deputy Director

Asaka Agricultural PC

MAMATKARIMOV Shafhat Uzgenovich Director

Namangan Agro-Economics PC

SABIROV Ibrahimjon Director
Xodjaev Abdumajid Deputy Director
Akramov Shuxrat Deputy Director
Ismatov Shokir Head, Veterinary Medicine
Yuldashev Ilhomjon Head, Agronomy
Ubaydullaev Maxammadjon Head, Physics

Bukhara Construction and Municipal PC

HUDOIKULOV Mehriddin Mardonovich	Director
HAIDAROV Valeri Bahramovich	Deputy Head
Imomkulov Tilav Muxamedovich	Chief Instructor

Nukus Polytechnic PC

Babakhanov Kiyatbay Kallibekovich	Director
Bekmuratov Z.	Deputy Director

Urgench Medical PC

Kuryazov Xurshid	Director
Rahmonov Ismoil	Deputy Director
Polvonova Lalaxon Ismailovna	In-charge of Project

Urugut PC of Construction and National Handicraft

Kudratov Djalil	Director
Khudayberganov Bakhtiyor	Deputy Director
Rajabov Shokir Bekmirzaevich	Chief, Facility Management Dept.

Beshkent Agricultural PC

Kudratov Djalil	Director
Khudayberganov Bakhtiyor	Deputy Director (Professional Training)
Olimov Pandji	Chief Instructor

Tashkent Chemical-Technological Institute

YUSUPBEKOV Nodirbek Rustmbekovich	Rector
ISMATULLAEV Pathulla Rahmatovich	Pro Rector (Education)
MANNONOV Ulugbek Vasikovich	Deputy Director (Science, IT)
KAMOLOV Tursunboi	Dean, Faculty of Retraining

Fergana Institute of Polytechnic

TOTIEV Rasuljan	Rector
MAHSILIEV Kishiyun	Pro Rector
IRGALIEV Oldijon	Dean, Faculty of Retraining

Andijan Agricultural Institute

HUDAIBERDIYEV Tolibjon Soliyevich	Rector
-----------------------------------	--------

Namangan Institute of Engineering and Pedagogy

MAHMUDOV Zakirjon	First Pro Rector (PC, AL)
BATIROV Erkim Hodjiakbarovich	Pro Rector (Science, Economics)

ISMAILOV Ravshanjon Bahritdinovich Pro Rector (IT, Foreign Relations)
KADIROV Sharkadibek Mahmudovich Dean, Faculty of Retraining

Bukhara Institute of Food and Light Industry

HODJIEV Muhsin Totievich Rector
ABDURAUPOVA Saida Erkinovna Pro Rector
NAVRUZOVA Gulgarda Nahmatovna Pro Rector
RAZZOKOV Shavhat Insonovich Pro Rector
HALIMOV Emin Zarinovich Dean, Faculty of Retraining

Kalalpakstan State University

Utiniyazov Kuyanishbay Rector

Tashkent First Medical Institute in Urgench

Duschanov Baxtiyor Allaberganovich Rector

Samarkand State University of Construction

Usmanov Valiakhmad Dean, Faculty of Retraining

Karshi Institute of Economy and Technology

Khodjakulov Rustam Turaevich Pro Rector (PC, AL)
Ruziev Akhror Evatovich Education Methodologist

Tashkent Institute of Textile and Light Industry (TITLI)

Alimova Khalimahon Alimovna Rector
Abdugaffarov A. Abdujaborovich First Pro Rector
Akbarov Djamol Nugmonovich Pro Rector
Khikmatullaeva Mukaddas International Relations Dept.
Gulyamov Azamat Eshonkulovich Assoc. Professor, Silk Technology
Daminov Askarali Davlatovich Assoc. Professor, Weaving Technology

Ministry of Health

ALIMOVA S. Head, Academic & Education Dept.
Dr. NAZAROVA S. Chief Expert
Dr. Farkhad z. Fuzailov Project Coordinator, "HEALTH" Project

Expert Sub Group (CSSVE)

Metalwork

POPOV YU. Teacher, Khamza Railway PC
ARSEBASOV I. Teacher, Mirza Ulugbek Industrial PC

BEKMURADOV Z.

Deputy Director, Nukus Polytechnic PC

Welding Technology

GANIEV Z.

Teacher, Mirza Ulugbek Industrial PC

SOSHIN S.

Teacher, Mirza Ulugbek Industrial PC

STULOVSKAYA T.

Teacher, Mirza Ulugbek Industrial PC

BEKMURADOV Z.

Deputy Director, Nukus Polytechnic PC

Pharmacy

NAZAROVA S.

Chief Expert, Ministry of Health

MANSUROVA D.

Teacher, Okhunboboev Medical College

HASANOVA D.

Teacher, Okhunboboev Medical College

MUHITDINOVA D.

Teacher, Okhunboboev Medical College

SHAMSIEV B.

Teacher, Okhunboboev Medical College

Nursing

NAZAROVA S.

Chief Expert, Ministry of Health

TURSUNKULOVA R.

Chief, Therapy Dept., Medial Institute

YUNUSJONOVA Z.

Chief, Nursing Dept., Medical Institute

NAZAROVA G.

Chief, Obstetric Dept., Bolovsky Medical College

Agronomy

MAHMATOV M.

Teacher, Kibray Agricultural PC

SATTAROVA K.

Teacher, Pskent Agricultural PC

HAITOVA M.

Teacher, Pskent Agricultural PC

URINOV U.

Teacher, Zangiota Agricultural PC

JURAEV T.

Teacher, Tashkent (Kensay) Agri. PC

Veterinary Medicine

MANASHEV H.

Director, Tashkent (Kensay) Agri. PC

ISAKOVA D.

Teacher, Kibray Business College

HOLOF SH.

Teacher, Kibray Business College

HOJAEV A.

D'ty Dir., Namangan Agro-economic PC

O&M Agricultural Machinery

UMAROVA K.

Teacher, Pskent Agricultural PC

NUGMANOV I.

Teacher, Tashkent Agro-commerce PC

KAMALOV D.

Teacher, Tashkent Agro-commerce PC

QAYUMOV B.

Teacher, Asaka Agricultural PC

Public Catering

BEKNAZAROV M.	Director, Kuiluk Service PC
SHODIEV	Teacher, Kuiluk Service PC
STOLBINA T.	Teacher, Kuiluk Service PC
SULAYMANOV D.	Deputy Director, Kuiluk Service PC
ALIEV M.	Teacher, Kokand PC of Human Services

Radio Engineering and Tele-equipment

SIDDIKHUJAEV O.	Teacher, Tashkent Communication PC
VISILAYKIN A.	Teacher, Tashkent Communication PC
NOSIROV S.	Chief, Republican Training Center
ZOKIROV A.	Director, Tashkent Radio Electronics PC
SULAYMONOV D.	D'ty Dir., Kokand PC of Human Services

Gas Supply System

TOKHIROV J.	Director, Tashkent Const. & Municipal PC
SHAMSITDINOVA R.	Teacher, Tashkent Const. & Municipal PC
HAYDAROV V.	D'ty Dir., Bukhara Const. & Municipal PC

Electric Network Equipment

RAKHMONOV F.	Head, Industrial Training, Tashkent RC
NOSIROV S.	Chief, Republican Training Center
HAYDAROV V.	D'ty Dir., Bukhara Const. & Municipal PC

Preservation of Agricultural Products

DADAEV K.	Dean, Faculty of Preservation of Agri. Products, Tashkent Chemical- Technological Institute
UMURZAKOVA A.	Teacher, Gulbakol Polytechnic PC
ABDULLAEVA D.	Teacher, Tashkent Agro-commerce PC

Zootechnics

TAJIBOEVA F.	Teacher, Kibray Agricultural PC
ALMATOV M.	Teacher, Okkurgan Agricultural PC
ISAKOVA D.	Teacher, Kibray Business College
RUZIEV A.	D'ty Dir., Beshkent Agricultural PC

Carpentry and Parquet Works

MINNERAY G.	Teacher, Tashkent #16 PC
SHOKIROVA I.	Teacher, Sergeli Polytechnic PC

SATTAROVA M.	Teacher, Tashkent PC of Handicrafts
JURAEV M.	D'ty Dir., Urugut PC of Const./H'craft
AZIZOV SH.	Teacher, Urugut PC of Const./H'craft

Food Processing (bread, sweets, macaronis, confectionary)

EMINOV A.	Director, Tashkent Technologic PC
ILALOV K.	Director, Gulbakol Polytechnic PC
PROSENKO V.	Teacher, Tashkent Technologic PC
KOSIMOV A.	Teacher, Yangiol Technologic PC

O&M Food Machinery

EMINOV A.	Director, Tashkent Technologic PC
KARTOSHEVA L.	D'ty Director, Tashkent Technologic PC
YUNUSOV SH.	Teacher, Tashkent Technologic PC

Printing Machinery & Computer Network

NORKULOV A.	Head, Textbook & Inf. Div., CSSVE
AVLIYOKULOV A.	D'ty Head, Textbook & Inf. Div., CSSVE
IKRAMOV A.	Rector, IDSSVE
NISHANOV A.	Pro Rector, IDSSVE
HUSANOV K.	Prof. , IT Dept., IDSSVE
MENSHENKO A.	Program Engineer, IDSSVE
MIRZAHMEDOV	Chief Engineer, Tashkent Printing Factory
PETROVA N.	Teacher, Printing Technology PC
ISLAMOV E.	Teacher, Printing Technology PC
MAHMUDOV S.	Head, Foreign Relations Dept., IDSSVE
BULANOV A.	Head, Printing Dept., TITLI

Embassy of Japan in Uzbekistan

Yukiko NAKANO	First Secretary
Tomoyuki Hayashi	Third Secretary

Japan International Cooperation Agency (JICA), Uzbekistan Office

Kae Yanagisawa	Resident Representative
Hideki Tanabe	Assist. Resident Representative
Eiji Asami	Assist. Resident Representative
Sharifzoda U. Sharipov	Program Officer

Uzbekistan-Japan Center for Human Development

Kazutoshi Iwanami	Co-Director
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MINUTES OF DISCUSSIONS
ON THE BASIC DESIGN STUDY
ON
THE PROJECT FOR IMPROVEMENT OF
TEACHERS' RETRAINING IN THE SECONDARY SPECIALIZED
AND VOCATIONAL EDUCATION
IN THE REPUBLIC OF UZBEKISTAN

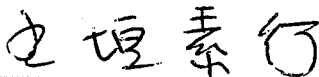
Based on the results of the Preparatory Study, the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Teachers' Retraining in the Secondary Specialized and Vocational Education (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the Republic of Uzbekistan (hereinafter referred to as "Uzbekistan") the Basic Design Study Team (I) (hereinafter referred to as "the Team(I) "), which is headed by Mr. Motoyuki Uegaki, Deputy Director of Office of Technical Coordination and Examination, Grant Aid Management Department, JICA, and is scheduled to stay in the country from November 27 to December 27.

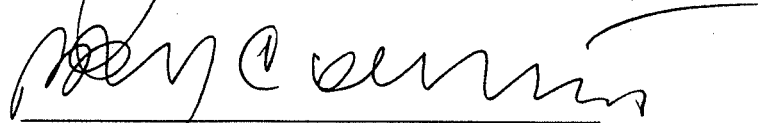
The Team held discussions with the officials concerned of the Government of Uzbekistan and conducted a field survey at the project sites.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets.

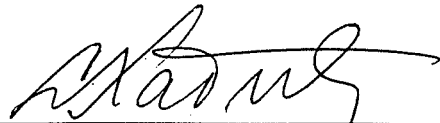
Tashkent, December 18, 2002



Mr. Motoyuki Uegaki
Leader
Study Team
Japan International Cooperation Agency



Mr. Khusanov Djummanazar Khusanovich
First Deputy of the Minister of
Higher and Secondary Specialized Education,
Head of the Center for Secondary
Specialized, Vocational Education



Mr. Salombek Khabibullaev
Director,
Department of Asia and Pacific Region
Agency of External Economic Relations

ATTACHMENT

1. Inception Report

The Japanese side explained the Inception Report to the Uzbekistan side, and the Uzbekistan side understood all the contents of the Report.

2. Project Title

The both sides agreed that the Project Title is defined as “the Project for Improvement of Teachers’ Retraining in the Secondary Specialized and Vocational Education”.

3. Objective of the Project

The objective of the Project is to improve the quality of vocational education in the secondary specialized and vocational level, as required in the National Program for Personnel Training, through the improvement of teachers’ retraining by providing equipment to the Institute for Development of Secondary Specialized, Vocational Education (hereinafter referred to as “IDSSVE”) and other related organizations, including the Center for Secondary Specialized, Vocational Education (hereinafter referred to as “CSSVE”), its regional centers, and professional colleges (hereinafter referred to as “PC”) selected as teachers’ retraining centers.

4. Requested Project Sites

The requested project sites are the CSSVE, its regional centers at 14 locations, the IDSSVE, and 9 PCs. The Uzbekistan side revised the list of selected 9 PCs based upon the criteria below:

- 1) The PC has concrete plan for teachers’ retraining.
- 2) The PC has enough pedagogic potential and can be defined as a model institute of teachers’ retraining in the both ways of regional and professional aspects.
- 3) The PC has economic and financial viability.
- 4) The PC has budgetary allocation commitment for teachers’ retraining.
- 5) The PC has no duplication of the equipment for the same retraining course by other projects.

The revised list of 9 PCs is attached as Annex – 1.

5. Responsible and Implementing Organization

The Responsible and Implementing Organization is the CSSVE, under the Ministry of Higher and Secondary Specialized Education (hereinafter referred to as “MHSSE”), which has the authority of teachers’ retraining for the secondary specialized and vocational education.

6. Items Requested by the Government of Uzbekistan

After discussion with the Team(I), the Uzbekistan side agreed to submit to the Team the final

request of the items with the curriculum, the concrete utilization plan, with consideration of the specialty of the nominated retraining courses in each project site, by Dec 25, 2002. JICA will assess the appropriateness of the request and the final component of the equipment will be determined after the forthcoming Basic Design Study(II).

7. Japan's Grant Aid Scheme

- 7-1 The Uzbekistan side understood the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Uzbekistan as described in Annex - 2.
- 7-2 The both sides will take the necessary measures, as described in Annex - 3, for smooth implementation of the Project, as a condition for the Japan's Grant Aid to be implemented.

8. Other Relevant Issues

- 8-1 The Japanese side confirmed the contents of the letter from the Minister of HSSE(No: W 89-01-770, dated on Dec 12, 2002) shown as Annex - 4, which defined that the function of the teachers' retraining would be extended to the model PCs as a pilot project.
- 8-2 The both sides confirmed that the selection of the PC and the professional retraining course was revised as mentioned in "4. Requested Project Sites". However, the final components of the project, including selection of PCs will be decided after further analysis in Japan based on appropriateness and effectiveness. The Japanese side agreed to inform the final selection of PCs with professional retraining courses after the analysis, in the forthcoming Basic Design Study(II).
- 8-3 The Uzbekistan side understood that this project was strongly focused on the teachers' retraining of PCs, therefore the equipment which was not related to the objective would be excluded from the component of the project. The following shall particularly be taken into consideration:
 - 1) Computers, their related equipment, and the printing machine will be selected in careful considerations of the purpose of formulating the program / curriculum and the syllabus for teachers' retraining.
 - 2) The equipment related to the network system for education management should be excluded from the component of this project.
- 8-4 The Uzbekistan side agreed that the CSSVE has responsibility to conduct regular monitoring and evaluation of the progress of all phases of the Project such as allocation and use of recurrent cost including operation and maintenance of the equipment, and manpower in each project site.
- 8-5 The both sides agreed that if a new project is planned by other donors to the PCs covered by this Project, the CSSVE would avoid duplication in the training courses and the equipment.

- Annex-1 The revised list of the requested PCs
- Annex-2 Japan's Grant Aid Scheme
- Annex-3 Major Undertakings to be taken by Each Government
- Annex-4 The letter from the Minister of HSSE

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List of Regional Center upgrading qualification and retraining teachers of MHSSE Professional Colleges of the Republic of Uzbekistan on JICA project

No	Name of Higher Institutions	Regions	Name of Professional College	Course of Retraining
1	Karakalpak State University	The Republic of Karakalpakistan Khorezm Region	Nukus Polytechnic Professional College	Metal work, welding
2	Subsidiary of I-TashMI	The Republic of Karakalpakistan Khorezm Region	Urgench Medical Professional College	Pharmaceutics, nursing
3	Namangan Engineering Pedagogical Institute, Fergana Polytechnic Institute	Andijian, Fergana, Namangan Regions	Namangan Agroecomic Professional College	Agronomy, veterinary
4			Asaka Agricultural Professional College	O&M of agricultural machines
5			Kokand Services Professional College	Public catering, O&M of a radio TV communication devices
6	Bukhara Technological Institute of Food and Light Industry	Bukhara and Navoi Regions	Bukhara Construction and Services Professional College	Installation and repair of gas supply system, installation of electrical equipment
7	Karshi Engineering Economics Institute	Kashkadarya and Surhandarya Regions	Beshkent Agricultural Professional College	Technology of preserving agricultural products, Zoo-technics.
8	Samarkand State Architectural Constructional Institute	Samarkand and Djizzak Regions	Urgut Construction and National Arts Professional College	Building interior works, wood works
9	Tashkent Chemical Technology Institute	Teshkent Region and Tashkent city	Tashkent technology Professional College	Food processing (bread, sweets, macaronis, confectionary), O&M of food and production machinery

Japan's Grant Aid Scheme

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials or such.

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.

Application (request made by a recipient country)

Study (Basic Design Study conducted by JICA)

Appraisal & Approval (appraisal by the Government of Japan and approval by the Cabinet of Japan)

Determination of Implementation (Exchange of Notes between both Governments)

Implementation (implementation of the Project)

(2) Firstly, an application or a request for a Grant Aid project submitted by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Japan's Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request.

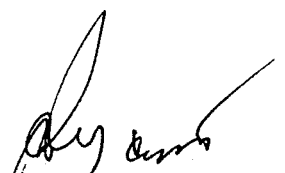
Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study Report prepared by JICA and the results are then submitted to the cabinet for approval.

Fourth, the project approved by the cabinet becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.





2. Contents of the Study

(1) Contents of the Study

The purpose of the Basic Design Study conducted by JICA on a requested project is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

- a) confirmation of the background, objectives, benefits of the project and also institutional capacity of agencies concerned of the recipient country necessary for project implementation,
- b) evaluation of the appropriateness of the project for the Grant Aid Scheme from a technical, social and economical point of view,
- c) confirmation of items agreed on by the both parties concerning a basic concept of the project,
- d) preparation of a basic design of the project,
- e) estimation of cost of the project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request. Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

(2) Selection of Consultants

For smooth implementation of the study, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on the proposals submitted by the interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the study is (are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

(1) Exchange of Notes (E/N)

Both Governments concerned extend Japan's Grant Aid in accordance with the Exchange of Notes in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid etc., are confirmed.

(2) "The period of the Grant Aid" means one Japanese fiscal year that the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

(3) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country.

However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(4) Necessity of the "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. The Government of Japan shall verify those contracts. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(5) Undertakings Required to the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

a) to secure land necessary for the sites of the project prior to the installation work in case the project is providing equipment,

b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,

c) to secure buildings prior to the installation work in case the project is providing equipment,

d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,

e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,

f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(6) Proper Use

The recipient country is required to maintain and use the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for the operation and maintenance as well as to bear all expenses other than those covered by the Grant Aid.

(7) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(8) Banking Arrangement (B/A)

a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in a bank in Japan. The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions to the Bank.

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[Signature]

[Signature]

Major Undertakings to be taken by Each Government

NO	Items	To be covered by Grant Aid	To be covered by Recipient side
1	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
2	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	(●)	(●)
3	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country		●
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to		●
5	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
6	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		●

(B/A: Banking Arrangement, A/P: Authorization to Pay)



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**ЯПОНСКОЕ АГЕНСТВО ПО
МЕЖДУНАРОДНОМУ СОТРУДНИЧЕСТВУ**

В соответствии с Постановлением Кабинета Министров Республики Узбекистан № 400 от 4 октября 2001 года «О мерах по совершенствованию системы подготовки педагогических кадров для средних специальных, профессиональных образовательных учреждений» претворяется в жизнь специальная программа подготовки, переподготовки и повышения квалификации педагогических и инженерно-педагогических кадров системы среднего специального, профессионального образования на период до 2010 года.

Для успешной реализации цели программы по обеспечению академических лицеев и профессиональных колледжей высококвалифицированными педагогическими и инженерно-педагогическими кадрами путем их подготовки, переподготовки и повышения квалификации, в рамках проекта безвозмездной помощи ЛСА, для создания региональных Центров повышения квалификации на систематической основе были определены профессиональные колледжи в целях совершенствования системы повышения квалификации. Вышеуказанные профессиональные колледжи определены исходя из таких критериев, как: их специализация, уровень и опыт подготовки кадров, отсутствие финансирования учебного заведения по другим зарубежным программам, их региональное месторасположение, потребность региона, наличие факультетов повышения квалификации в региональном высшем учебном заведении.

При этом большое значение в процессе подготовки и переподготовки педагогических и инженерно-педагогических кадров для системы среднего специального, профессионального образования будет иметь привлечение ведущих профессоров и преподавателей соответствующих высших образовательных учреждений республики.

Выражая мое глубокое уважение, заверяю Вас, что мы приложим все усилия к тому, чтобы безвозмездная помощь ЛСА была использована в целях подготовки высококвалифицированных профессиональных кадров для развития экономики Республики Узбекистан.

Министр

С.С.Гулямов