Code No.	Sub Description	Unit	Q'I
BE1048	Syringe-injectors in set	set	5
BE1049	Electrocardiograph	рс	1
BE1050			1
BE1051 Electric oven with time switch		pc	1
BE1052	BE1052 Cow model for insemination		1
BE1053	Model of cow skeleton	pc	1
BE1054	Model of cow internal organs, muscular system	рс	1
BE1055	Drying chamber	pc	1
BE1056	Special instrument for piercing, branding, tattooing of animals	set	1
BE1057	Anemometer	рс	1
BE1058	Gas analyzer	рс	1
BE1059	Hygrometer	pc	1
BE1060	Goggles	рс	1
BE1061	Shedding units for horses, big-horn animals, pigs, dogs	set	1
BE1062	Pregnancy calendar for agricultural animals	pc	1
BE1063	Pincers for nose	set	1
BE1064	Obstetrical loops	pc	1
BE1065	Water bath	pc	1
BE1066	Syringe catheters in set	pc	1
BE1067	Egg incubator	pc	1
BE1068	· Auto-feeder	pc	$\frac{1}{1}$
BE1069	Feed mixer	pc	1
BE1070	Infra-red lamp with stand	pc	$\frac{1}{1}$
BE1071	Ultraviolet lamp with stand	pc	1
BE1072	Milking machine	pc	1
BE1073	Wool cutters/shearing device in set with grinders	pc	13
BE2000	7.2 Technology for preservation of agricultural products		
BE2002	Inspection conveyor	рс	1
BE2003	Vegetable slicer	pc	1
BE2004	Frying device	pc	1
BE2005	Cutting table	pc	3
BE2007	Can seamer and bottle capper	pc	1
BE2008	Autoclave	pc pc	2
BE2009	Kneader	pc	2
BE2010	Juicer	pc	1
BE2011	Juice press	pc	1
BE2012	Mark printing machine	pc	1
BE2013	Meat chopper		1
BE2014	Twin screw mixer	βc pc	1
		P0	
UT0000	8 Urgut PC of Construction and National Handicraft		
UT1000	8.1 Joiner's carpentry and parquet works		
UT1001	Thickness planer	рс	1
UT1002	Wood lathe	pc	1
UT1003	Jointer	рс	1
UT1004	Tenon cutting machine	рс	1
JT1005	Saw sharpening machine	рс	1
JT1006	Mortising machine	рс	I
UT1007	Portable circular saw	рс	1
JT1008	Router machine	рс	1
	Electric floor sander	рс	1
JT1009	Electric floor planer	pc	1
JT1010		po	
JT1010 JT1011	Electric floor polisher	pc pc	1
JT1010 JT1011 JT1012	Belt sander		<u>1</u> 1
JT1010 JT1011 JT1012 JT1013	Belt sander Pedestal grinder	pc	
JT1010 JT1011 JT1012 JT1013 JT1014	Belt sander         Pedestal grinder         Portable electric planer	pc pc	1
UT1010 UT1011 UT1012 UT1013 UT1014 UT1015	Belt sander         Pedestal grinder         Portable electric planer         Circular saw	pc pc pc	1
UT1010 UT1011 UT1012 UT1013 UT1013 UT1014 UT1015 UT1016	Belt sander         Pedestal grinder         Portable electric planer	pc pc pc pc pc	1 1 1
UT1010 UT1011 UT1012 UT1013 UT1014 UT1015 UT1016 UT1017	Belt sander         Pedestal grinder         Portable electric planer         Circular saw	pc pc pc pc pc pc pc	1 1 1
UT1010 UT1011 UT1012 UT1013 UT1013 UT1014 UT1015 UT1016	Belt sander         Pedestal grinder         Portable electric planer         Circular saw         Spray gun with air compressor	pc pc pc pc pc pc pc pc pc pc	1 1 1 1
JT1010 JT1011 JT1012 JT1013 JT1014 JT1015 JT1016 JT1017	Belt sander         Pedestal grinder         Portable electric planer         Circular saw         Spray gun with air compressor         Lacquer sprayer	pc pc pc pc pc pc pc pc pc	1 1 1 1 1 1 1
JT1010 JT1011 JT1012 JT1013 JT1014 JT1015 JT1016 JT1017 JT1018	Belt sander         Pedestal grinder         Portable electric planer         Circular saw         Spray gun with air compressor         Lacquer sprayer         Radial saw	pc pc pc pc pc pc pc pc pc pc pc set	1 1 1 1 1 1 1 1
JT1010 JT1011 JT1012 JT1013 JT1014 JT1015 JT1016 JT1016 JT1017 JT1018 JT1019	Belt sander         Pedestal grinder         Portable electric planer         Circular saw         Spray gun with air compressor         Lacquer sprayer         Radial saw         Saw blade set	pc pc pc pc pc pc pc pc pc pc set set	1 1 1 1 1 1 1 1 1
JT1010 JT1011 JT1012 JT1013 JT1014 JT1015 JT1016 JT1017 JT1018 JT1019 JT1020	Belt sander         Pedestal grinder         Portable electric planer         Circular saw         Spray gun with air compressor         Lacquer sprayer         Radial saw         Saw blade set         Carpentry tools set	pc pc pc pc pc pc pc pc pc pc pc set	1 1 1 1 1 1 1 1

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Code No.	Sub Description	Unit	Q't	
UT1024	Smoothing plane	рс	13	
TA0000	9. Tashkent Technologic PC			
TA1000	9.1 Food processing (bread, sweets, macaronis confectionary)			
TA1003				
TA1006	Kneader for dough	pc	1	
TA1008	Dividing and making roll dough machine	pc	1	
TA1012	Bakery oven	pc	1	
TA1013	Macaroni extruder and formation machine	pc	1	
TA1028	Molder	pc	1	
TA1030	Grinding mill for recovery product	рс	1	
TA1031 TA1032	Bakery oven for cookie	pc	1	
TA1032 TA1033	Kneader for macaroni dough Cutting machine for wafer	pc	1	
TA1033	Press machine for cookie	pc		
TA1036	Mixer for viscous materials	pc	1	
TA1038	Éclair formative machine	pc pc	1	
TA1039	Kneader for biscuit and cream	pc pc	1	
TA1041	Emulsion-mixer for batter and wafer paste	pc	1	
TA1042	Waffle baker	pc		
TA1043	Coating machine for paste	pc		
TA1044	Bakery fermentation box	pc	1	
TA1047	Automatic twist-wrapping machine for cookies and wafers	pc	1	
TA1048	Macaroni dryer	рс	1	
TA1049	Revers sheet	pc	1	
TA2000	9.2 Operation and maintenance of equipment for food production	I		
TA2001 TA2002	Air separator	pc	1	
TA2002 TA2003	Vibration separator Disk cleaner for grain	pc	1	
TA2003	Magnetic separator	pc	1.	
TA2007	Grain flow meter	pc	1	
TA2008	Dosing mechanism for grain	pc	1	
TA2009	Wet grain pilling machine	pc pc	1	
TA2010	Polishing machine for grain	pc	1	
TA2011	Sieving machine for grain	pc	1	
TA2013	Peeler machine	pc	1	
TA2014	Bucker	рс	1	
TA2015	Mixer for fodders	рс	1	
TA2016	Roller mill	рс	1	
TA2017	Threshing machine	рс	1	
СМ0000	10. Common Equipment for 9 PCs		·	
CM0001	Overhead projector	pc	9	
CM0002	Video camera (handy type)	pc	9	
CM0003	LCD projector with screen	set	9	
CM0004	Voideo authorization system	set	9	
CM0007	Mini bus	рс	9	
C00000	11. IDSSVE, CSSVE & Regional Centers			
F00000	11.3 IDSSVE (Faculty)			
F10000	11.3.1 Server section			
F10001	Proxy/mail server	рс	1	
F10002	Fire wall /DNS server	pc pc	1	
F10003	Network computer	pc	1	
F10005	UPS	pc	3	
F10006	Laser printer	рс	1	
F10008	HUB A	pc	1	
F10009	HUB B	pc	9	
F10010	Modem	pc	2	
F30000 F30001	11.3.3 Chair of information			
F30001 F30005	Computer Scanner	pc	2	
F30005	Color printer	pc	1	
F40000	11.3.4 Chair of professional methods	pc	1	
F40001	Computer			
	Laser printer	pc	1	

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Code No.	Sub No.	Description	Unit	Q't
F50000	1.10.	11.3.5 Chair of pedagogic and psychology		
F50001		Computer	pc	1
F50002	Laser printer 11.3.6 Chair of economy and management	рс	1	
F60000				
F60001 Computer			pc	1
F60002		Laser printer	рс	1
F70000		11.3.7 Chair of public subjects		
F70001		Computer	рс	1
F70002		Laser printer	рс	1
F80000		11.3.8 Class Rooms(5)		
F80003		Multimedia projector with screen	set	3
F80004		OHP	pc	3
F80005		Video eye	pc	3
F80007 F80008		Blackboard	pc	5
		Stand board	рс	3
F90000				
F90005		Audio video set	set	1
F90012		Video camera	pc	1
FA0000 FA0001		11.3.10 Digitalized Library		
FA0001 FA0002		Server computer	рс	1
FA0002 FA0003		Computer UPS	pc	1
FA0003 FA0004		Laser printer	pc	2
FA0004 FA0005		Laser printer Multimedia projector with screen	pc	1
FA0003		Copy machine A3	set	1
FA0007	··· · · · · · · · · · · · · · · · · ·	TV and video set	pc	1
FA0010		Video camera	set	1
FA0014		Blackboard	pc	1
FA0015	-	Stand board	pc	1
FB0000		11.3:11 Mini Printing Room	pc	1
FB0010		Copy machine A3		
FC0000		11.3.12 Printing House	pc	1
FC1000		The Shop of Preprinting Prepare)		
FC1100		Designer Section)		
FC1101		Server computer		1
FC1102		Computer	pc pc	1
FC1103		JPS	pc pc	3
FC1107		Scanner, flat-bed		1
FC1108		Printer for color testing	pc .	1
FC1110		Laser printer, A4	pc	1
FC1111		Printer, color A3	pc	1
FC1200		Section of Computer Composition)		····
FC1201		Computer	рс	3
FC1202		JPS	pc	3
FC1205	I	Assembled table	pc	1
FC2000	(	The Shop of Printing)		<b>^</b>
FC2100	(	Section of Making Forms)		
FC2101	F	ilm printer (Imagesetter)	рс	1
FC2102		ilm processor	рс	1
FC2103		'S plate printer	рс	1
FC2104		'S plate processor	рс	1
		Assembled table	pc	1
FC2105		Section of Printing)	· · · · · · · · · · · · · · · · · · ·	
FC2105 FC2200		rinting machine, 2-Color	pc	1
FC2105 FC2200 FC2201		rinting machine, mono-color	pc	1
FC2105 FC2200 FC2201 FC2202	P		1 20 1	
FC2105 FC2200 FC2201 FC2202 FC2202	F L	Digital printer A3	pe pc	1
FC2105 FC2200 FC2201 FC2202 FC2202 FC2205 FC3000	Р Г. (	Digital printer A3 After Printing Shop)		1
FC2105           FC2200           FC2201           FC2202           FC2205           FC3000	F	Digital printer A3 After Printing Shop) olding machine		1
FC2105           FC2200           FC2201           FC2202           FC2205           FC3000           FC3001           FC3004	F F S	Digital printer A3 After Printing Shop) olding machine elect machine for writing books	рс	
C2105           C2200           C2201           C2202           C2205           C2000           C3000           C3001           C3004           C3006	Р Г. (, F S Т	Digital printer A3 After Printing Shop) olding machine elect machine for writing books Thread sewing machine	pc pc	1
FC2105           FC2200           FC2201           FC2202           FC2205           FC3000           FC3001           FC3004	P [] [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [ [	Digital printer A3 After Printing Shop) olding machine elect machine for writing books Thread sewing machine Vire sewing machine	pc pc pc	1
C2105           C2200           C2201           C2202           C2205           C2000           C3000           C3001           C3004           C3006	F ( F S T V T	Digital printer A3 After Printing Shop) olding machine elect machine for writing books Thread sewing machine	pc pc pc pc pc	1 1 1

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Code No.	Sub No.	Description	Unit	Q'ty
FC4001	001 Measuring equipment (densitometer)		set	1
FC5000		(Additional equipment)		
FC5001		Humidifier, hygrometer	lot	1
FD0000		11.3.13 For retraining on information technology		
FD1000		(Laboratory of New Information Technology)		1
FD1001		Server computer	рс	1
FD1002		Computer	рс	4
FD1004		UPS	рс	5
FD1005		(Network equipment)		
FD1006		Computer(Notebook type)	рс	2
FD1007		Scanner A3	рс	1
FD1009		Laser printer, color	рс	1
FD1012		CD/R-RW	pc	2
FD1016		Multimedia projector	рс	1
FD1026	1026 TV and video set		рс	1
FD1028	Video tape recorder, digital		pc	1
FD1029	Audio tape recorder		рс	1
FD1030	30 Video camera, digital		pc	2
FD1031	D1031 Photo camera, digital		рс	2
FD1033		CD & DVD player	рс	1
FD1036		Fax machine	рс	1
FD2000		(Specialized IT Class Room)		
FD2001		Server computer	рс	1
FD2002		Computer	рс	13
FD2003		UPS	рс	14
FD2004		Laser printer	рс	1
FD2007		Multimedia projector	рс	1
FD2008		OHP	рс	1
FD2009		Video eye	рс	1
FD2010		Blackboard	рс	1
FD2011		Stand board	рс	1

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Annex-II

## PROJECT SITE

No.	Site		Course/Section/Contents
4	Nukus Polytechnic PC		Metal works
1			Welding
2	Urgench Medical PC		Nursing
2			Pharmacology
3	Namangan Agro-Economics PC	3,1	Veterinary
5		3,2	Agronomy
4	Asaka Agricultural PC	4,1	O&M of agricultural machines and equipment
5	Kokand PC of Human Services		Public catering
5			Repair & service of radio engineering and tele-equipment
6	Bukhara Construction and Municipal PC		Installation & repair of equipment for gas supply system
			Installation of electric networks and equipment
7	Beshkent Agricultural PC		Zoo-technics
			Technology for preservation of agricultural products
8	Urugut PC of Construction and National Handicraft	8,1	Joiner's carpentry and parquet works
9	Tashkent Technologic PC		Food processing (bread, sweets, macaronis, confectionary)
9			O&M of equipment for food production
10	Common Equipment for 9 PCs	10	Audio-visual equipment, vehicle
11	Institute for Development of Secondary Specialized, Vocational Education (IDSSVE)		Computers and network equipment
			Printing machines and equipment

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### Japan's Grant Aid Program

The Grant Aid Scheme 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 the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

## 1. Grant Aid Procedures

- (1) Japan's Grant Aid Scheme is executed through the following procedures.a) Application (Request made by a recipient country)
  - b) Study (Basic Design Study conducted by JICA)
  - c) Appraisal & Approval (Appraisal by the Government of Japan and approval by Cabinet)
  - d) Determination of Implementation (The Notes exchanged between the Governments of Japan and the recipient country)
  - e) Implementation (Implementation of the Project)

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

Secondly, JICA conducts the study (Basic Design Study), using Japanese consulting firms.

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

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

#### 2. Basic Design Study

(1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study"), conducted by JICA on a requested project (hereinafter referred to as "the Project"), is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows:

- a) confirmation of the background, objectives and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation;
- b) evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from the technical, social and economic points of view;
- c) confirmation of items agreed on by both parties concerning the basic

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concept of the Project;

- d) preparation of a basic design of the Project; and
- e) estimation of costs 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.

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

(2) Selection of Consultants

For the smooth implementation of the Study, JICA uses a consulting firm selected through its own procedure (competitive proposal). The selected firm participates the Study and prepares a report based upon the terms of reference set by JICA.

At the beginning of implementation after the Exchange of Notes, for the services of the Detailed Design and Construction Supervision of the Project, JICA recommends the same consulting firm which participated in the Study to the recipient country, in order to maintain the technical consistency between the Basic Design and Detailed Design.

#### 3. Japan's Grant Aid Scheme

(1) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, 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" means the one fiscal year which the Cabinet approves the project for. Within the fiscal year, all procedure such as exchanging of the Notes, concluding contracts with consulting firms and contractors and final payment to them must be completed.

However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

(3) Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

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

However, the prime contractors, namely consulting, constructing 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 "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

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

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

- a) to secure a lot of land necessary for the construction of the Project and to clear the site;
- b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities outside the site;
- c) to ensure prompt unloading and customs clearance at ports of disembarkation in the recipient country and internal transportation therein of the products purchased under the Grant Aid;
- d) to exempt Japanese nationals from customs duties, internal taxes and fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts;
- e) 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;
- f) to ensure that the facilities constructed and products purchased under the Grant Aid be maintained and used properly and effectively for the Project; and
- g) to bear all the expenses, other than those covered by the Grant Aid, necessary for the Project.

#### (6) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign the necessary staff for operation and maintenance of them as well as to bear all the 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 should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the 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□A/P□issued by the Government of 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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# Annex - IV

# Major undertakings by each government

No.	Items	To be	To be covered
ļ		covered by	by Recipient
		Grant Aid	side
	To bear the following commissions to a bank of Japan for the		
	banking services based upon the B/A	·	
1	1) Advising commission of A/P		•
	2) Payment commission		•
	To ensure prompt unloading and customs clearance at the port of disembarkation in recipient country		
2	<ol> <li>Marine(Air) transportation of the products from Japan to the recipient country</li> </ol>	•	
	2) Tax exemption and customs 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 contact such facilities as may be necessary for their entry into the recipient country and		•
	stay therein for the performance of their work		
	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the		•
4	recipient country with respect to the supply of the products and services under the verified contracts		
5	To maintain and use properly and effectively the facilities		•
	constructed and equipment provided under the Grant		······································
	To bear all the expenses, other than those to be borne by the		•
6	Grant, necessary for construction of the facilities as well as		
	for transportation and installation of the equipment		

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# Necessary measures to be taken by the Uzbekistan side

The following necessary measures should be taken by the Uzbekistan side on condition that the Grant Aid by the Government of Japan is extended to the Project.

- 1. To provide necessary data and information whenever the Japanese side requests;
- 2. To allocate enough budget to procure required spare parts and materials necessary for operation and maintenance;
- 3. To allocate enough numbers of engineers and administration staff for the Project;
- 4. To secure a route to transport and deliver machinery and equipment for installation;
- 5. To provide a safe storage place for machinery and equipment after delivery and before installation; and
- 6. To obtain documents required for obtaining the approval or permit for landing and customs clearance of machinery and equipment to be imported for the project, together with bearing necessary expenses including charges and fees.

MARIAM

# 資料8. 基本設計概要表

1. 協力対象事業名 ウズベキスタン共和国 中等専門教育開発研究所機材整備計画 2. 我が国が援助することの必要性・妥当性 (1) 我が国が当該国に対し援助することの必要性・妥当性 ウズベキスタン(以下、「ウ」国とする)はソ連崩壊後の新たな国際情勢において地政学的に 重要な位置をしめている国であり、また同国の民主化、市場経済導入への動きは ODA 大綱 の観点からも望ましいものであるため、同国が人材不足や経済インフラの老朽化、環境悪化 などの問題に効率的に対処し、経済的な困難を克服して国づくりを行えるように、我が国は 同国に対し積極的な支援を行っている。98 年 11 月の同国との間での ODA 政策協議の結果 等を踏まえ、(1)市場経済化移行支援、(2)運輸インフラ整備、(3)環境保全、(4)地 方医療、(5)民主化・行政支援、を我が国支援の重点分野としている。 (2) 当該プロジェクトを実施することの必要性・妥当性 「ウ」国政府は中等専門教育機関を整理統合し、人口の過半数を占める 20 歳以下の若年労 働者に職業能力を身につけさせるため、実践的な職業教育科目を充実させ、産業界に即戦力 として参入できる人材を育成することに中等教育の重点を置いた「国家人材育成プログラム」 を 1997 年に制定し、教育システムの抜本的な改革に取り組んでいる。これに対し、アジア 開発銀行、日本国際協力銀行、韓国経済協力基金をはじめとするドナーは、中等教育分野に 対して、借款、技術協力等の支援を積極的に行っている。 一方、職業カレッジの教育・訓練用機材は、旧ソ連時代から受け継がれた旧式の機材が殆ど で近年の産業界の技術と教育現場での実習内容に乖離がある、等の問題を抱えている。この ため、新しい技術と教育法を身につけた教員の養成、特に新しい技術の習得を目標とした実 習を含む現職教員の再訓練は喫緊の課題となっている。この課題に対応するべく、全国の幹 部教職員の再訓練、資格向上を実施する中等専門教育開発研究所が設立され、新しい教育指 導方法等に対する定期的な研修が実施されている。本計画の協力対象である同研究所は中等 専門教育分野の教育計画の策定、教材作成の役割も担っている。他方、専門職業科目の教員 再訓練に関しては、地域のパイロット校とされている職業カレッジ等において270の職業分 野で約2,000科目をカバーする技術更新のための再訓練が実施されており、各地域の産業立 地状況、雇用需要等に基づき今回の協力対象9校が選定された。 また、近年、教科書等の使用言語をロシア語からウズベク語に転換し、民族的な自覚を高め るという政府方針に沿って、教材のウズベク語化が進められており、教員再訓練における教 材作成においても、同様にウズベク語での作成が必要となっているものの、教材のような多 種少量の印刷需要には市中の印刷所ではコストが掛かりすぎるため、十分対応できていない 現状である。 中高等専門教育省の下部機関である中等専門教育センターは、教員再訓練の中心的な実施機 関である中等専門教育開発研究所の機材が依然として旧式であり不十分な訓練しかできない こと、専門科目の教員再訓練用機材が老朽化・旧式化していることから、これら機材を整備 する計画を策定し、我が国に対して無償資金協力を要請してきた。 3. 協力対象事業の目的(プロジェクト目標) 中等専門教育開発研究所及び9校の職業カレッジに対し教員再訓練用の機材を整備する

ことにより、中等専門教育分野の教員再訓練機能が強化され、職業カレッジにおける教育の質が向上する。

4. 協力対象事業の内容

(1) 対象地域

ウズベキスタン国全国

(2) アウトプット

職業カレッジ9校で専門科目に係る教員再訓練用機材が、また中等専門教育開発研究所で 再訓練と教材作成に係る機材が整備される。

- (3) インプット
  - 【日本側】

職業教育用機材(金属加工、溶接技術、看護学、薬学、獣医学、農学、農業機械保守、外食・ 仕出、無線通信機器保守、ガス供給設備保守、電気設備保守、動物学、農産品貯蔵、建築仕 上・木工、製パン・製麺・製菓、食品加工機械保守の各コース)、コンピュータ・ネットワー ク及び印刷機械の調達

【ウズベキスタン側】

調達機材のための建物改修、電気設備工事、配管設備工事、空調換気工事、防災設備工事、 機材移設工事等。

(4) 総事業費

概算事業費 7.15 億円(日本側 7.08 億円、ウズベキスタン国側 0.07 億円)

- (5) スケジュール詳細設計期間を含め約14ヶ月を予定
- (6) 実施体制
   実施機関:中等専門教育センター
   運営機関:中等専門教育開発研究所、職業カレッジ(9校)

5. プロジェクトの成果

- (1) プロジェクトの裨益対象の範囲及び規模 中等専門教育開発研究所:全国の中等専門教育に従事する教職員1,800人/年間 職業カレッジ9校:各地域の再訓練対象教員700人/年間
- (2) 事業の目的(プロジェクト目標)達成を示す成果指標

座学中心の再訓練から実習中心に移行(運営機関で実践的な職業教育が可能となる)

	2002年(実施前)	2008年(機材調達後3年)
全体教員数	約 49,000 人	約 130,000 人
再訓練受講生数	2,300 人/年	2,500 人/年
機材を利用した実習比率	0~10%	40~65%
(座学時間数/実習時間数)		

再訓練用教材(300種類)の印刷頁数の増加

印刷費用効果

	2002年(実施前)	2008年(機材調達後3年)
教材印刷頁数	0頁	約 15,840,000 頁
印刷費用(単価)	外注:8スム/頁	内製:6スム/頁

(注) 1スム=0.001027米ドル

(3) その他の成果指標

学生の実習時間数の増加(校内で、専門科目で機材を共用する)

				-				
		2002年(実施前)	2008年(機材調達後3年)					
	機材を利用した実習比率	0~10%	20~50%					
	(座学時間数/実習時間数)							
	学生の就職率	61~86%	86~100%					
				-				
6. タ	▶部要因リスク(事業の目的(	プロジェクト目標) 0	)達成に関するもの)					
(1)	軍営・維持管理のための要員・	予算が確保される必	要がある					
(2) j	産業界、専門職業分野の雇用ニ	ーズが変動しないこ	と					
屛	雇用ニーズが変動すると専門職業分野にも影響し、成果指標に影響が出る可能性がある。							
7. 今	後の評価計画							
(1) =	事後評価に用いる成果指標							
(	① 再訓練計画対象教員数(人)							
(	② 機材を利用した再訓練実習時間数							
(	③ 再訓練用教材印刷頁数(枚)							
(2)評	(2)評価のタイミング							

2008 年以降

# 資料9. 入手資料リスト

	資料名称		発行元	内容
1	工業統計 2001 (ロシア語)	1	マクロ経済統計省	工業部門の全国統計
2	社会経済統計 2001(ロシア語)	1	マクロ経済統計省	社会経済関連全国統計
3	州統計年鑑 2001(ロシア語)	1	マクロ経済統計省	州別地域統計
4	人口統計 1991-2001(ロシア語)	1	マクロ経済統計省	全国の各種人口統計
5	質問回答書(英語)	1	中等専門教育センター	中等専門教育センターに関連する Questionnaireに対する回答書
6	質問回答書(英語)	1	中等専門教育開発研究所	中等専門教育開発研究所に関連する Questionnaireに対する回答書
7	再訓練カリキュラム(英語)	1	高中等專門教育省	幹部教職員、技術指導員の再訓練カリ キュラムの抜粋
8	職業カレッジ(9校)データ	1	中等専門教育センター	プロジェクト対象9パイロット校の学校別 Questionnaireに対する回答書
9	閣僚会議府令第400号(英語)	1	閣僚会議府	教員再訓練計画に係る法令
10	公共投資計画 2000-2002(英語)	1	マクロ経済統計省	公共投資に係る国家計画
11	国家戦略とプログラム 2002-2004(英語)	1	アジア開発銀行	アジア開発銀行による対ウズベキスタン 支援戦略
12	国別援助計画 2001-2003 ウズベキスタン (英語)	1	アジア開発銀行	アジア開発銀行によるウズベキスタン向け 援助計画