STUDY REPORT ON THE PROJECT FOR IMPROVEMENT OF NURSING EDUCATION SYSTEM IN THE REPUBLIC OF UZBEKISTAN

JANUARY 2003

Japan International Cooperation Agency (JICA)

Table of Contents

| Preface |
|---------------|
| Location Map |
| Abbreviations |

6. References

| Chapter 1 Background of the Project $\cdots 1$ | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
| 2-1 Basic Concept of the Project · · · · · · · 3 | | | | | | |
| 2-2 Basic Design of the Requested Japanese Assistance $\cdots 5$ | | | | | | |
| 2-2-1 Design Policy 5 | | | | | | |
| 2-2-2 Equipment Plan · · · · · 6 | | | | | | |
| 2-2-3 Implementation Plan · · · · · · 10 | | | | | | |
| 2-3 Obligations of Recipient Country · · · · · 15 | | | | | | |
| 2-4 Project Operation Plan · · · · · 16 | | | | | | |
| Chapter 3 Project Evaluation and Recommendations · · · · · 17 | | | | | | |
| 3-1 Project Effect | | | | | | |
| 3-2 Recommendations | | | | | | |
| | | | | | | |
| Appendices | | | | | | |
| 1. Distribution Plan of the equipment | | | | | | |
| 2. Member List of the Study Team | | | | | | |
| 3. Study Schedule | | | | | | |
| 4. List of Parties Concerned in the Recipient Country | | | | | | |
| 5. Minutes of Discussions | | | | | | |

PREFACE

In response to a request from the Government of the Republic of Uzbekistan, the Government

of Japan decided to conduct a study on the Grant Aid for the Project for Improvement of Nursing

Education System and entrusted the Japan International Cooperation Agency (JICA) to conduct the

study with the assistance of the Japan International Cooperation System (JICS).

JICA sent to the Republic of Uzbekistan a study team from October to November, 2002.

The team held discussions with the officials concerned of the Government of the Republic of

Uzbekistan, and conducted a field study at the study area. After the team returned to Japan, further

studies were made. As a result, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of

friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the

Republic of Uzbekistan for their close cooperation extended to the team.

February 2003

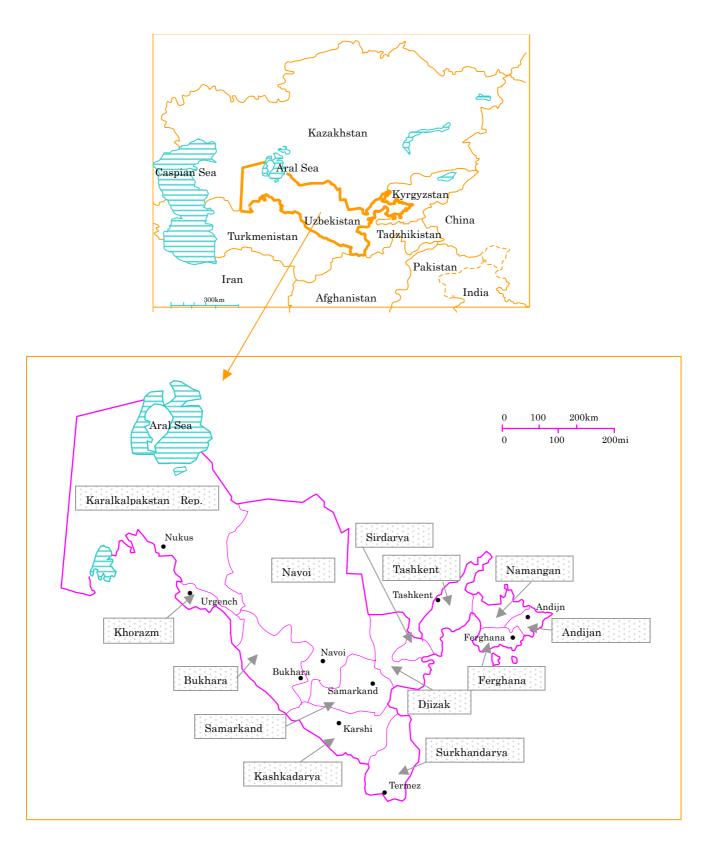
Takao Kawakami

President

Japan International Cooperation Agency

M上隆朗

Location Map



Map 1 Republic of Uzbekistan

Abbreviations

| DHQN | Departments for Higher Qualification for Nurses |
|-------|--|
| KOICA | Korea International Cooperation Agency |
| USAID | United States Agency for International Development |
| WB | World Bank |
| WHO | World Health Organization |

Chapter 1 Background of the Project

Chapter 1 Background of the Project

The government of the Republic of Uzbekistan (hereinafter referred to as "Uzbekistan") issued the Decree of the President in 1998 and has since been carrying out a comprehensive reform on health and medical system. One of the several factors that necessitated the reform was the strained state finances and consequent deterioration of medical service, which was established during the former Soviet Era and practiced till the country's independence in 1991. The needs for review of the "treatment oriented medical services" and needs for enhancement of the healthcare workers throughout the country were another factors.

As part of the health/medical reform program, the government started reviewing nursing education system, adopted new curriculum based on "Nursing Models" to upgrade the quality of nursing in Uzbekistan. However, due to the discontinued channel of receiving educational equipment from the former Soviet Union and tight state financial situation, students have been forced to study by using worn-out models/equipment and hand made models. In addition, the government has scarce prospect to procure equipment for teaching so-called patient-oriented nursing techniques even for the newly opened Departments for Higher Qualification for Nurses affiliated to Medical Institutes (hereinafter referred to as DHQN).

Under these circumstances, the government of Uzbekistan requested the government of Japan to extend a grant aid for procuring equipment to carry out the nursing education reform in Uzbekistan.

Chapter 2
Contents of the Project

Chapter 2 Contents of the Project

2 - 1 Basic Concept of the Project

(1) Overall Goal and Project Objectives

The government of Uzbekistan set the 12 National goals to be achieved by the year of 2005 under the Decree of the President "Health and Medical System Reform" proclaimed in 1998. Among those goals, training of medical personnel and upgrading the quality of healthcare workers through re-training were set as top priorities to implement.

In nursing field, enhancement of education by replacing and supplementing educational models/ equipment and reforming nursing education through introduction of new nursing concept so called "Nursing Models" were set as overall goals.

In this regard, this project aims to contribute to achieve these goals through replacing the worn out models/equipment and to bring in essential equipment requiring for the adoption of "Nursing Models", which ultimately support the overall goal on the national level as described above.

(2) Outline of the Project

This grant aid project aims to assist the nursing education reform of the government by donating funds for ① renewing worn-out models/equipment of 53 Medical Colleges/Schools and 6 DHQN throughout the country, and for ② procuring basic educational equipment necessitated for carrying out new curriculum based on "Nursing Models".

2 - 2 Basic Design of the Requested Japanese Assistance

2 - 2 - 1 Design Policy

(1) Target Facilities (the Project Sites)

1) Medical Colleges/Schools

From Uzbek side, strong requests were made to cover all the 53 Medical Colleges/ Schools presently exist, as target facilities of the Project. In considering this and to avoid the gap in educational level among the schools, as well as following reasons, the Project shall set 53 Medical Colleges/ Schools as the target facilities.

- ① Nursing educational facilities in Uzbekistan uniformly use the same curriculum introduced during the former Soviet era at all nursing schools, therefore exhibit little technical variance.
- ② The Equipment to be procured by this project are of basic types necessary for general nursing education thus with their current technical level, the Equipment is to be fully utilized.
- ③ In line with the on-going reform of nursing education, Japanese experts have conducted seminars (eleven times as of December 2002) on nursing education and management,

giving lectures and hands-on training related to "Nursing Models" to a total of 350 nursing teachers, managers, administrators, etc. nationwide. As a result, some of the participants of these seminars began conducting open lectures at own schools to convey new concept and skills to their colleagues.

2) DHQN

There seems to be no apparent disparity in terms of the quality of faculty and educational facilities among the DHQN and since DHQN have been established for the purpose of training nurse leaders in Uzbekistan, it is considered that the necessity, appropriateness and priority of these 6 facilities are equally high and to be included in the project as target facilities.

(2) Policy and Criteria for Selecting Equipment

1) Criteria for Equipment Selection

The Equipment to be procured by this project must:

- ① be a supplement to the current shortage or renewal of the existing worn-out equipment,
- ② be appropriate to the curriculum and educational level of the target facilities and be of basic types that do not require technical guidance,
- ③ be designed to withstand the climatic conditions of the project sites,
- ④ be the types, if maintenance and spare-parts/consumables are required, that can be easily covered by the technical/financial resources of the Uzbek,
- 5 be procurable without difficulties,
- 6 not duplicate with the Equipment procured by World Bank under their Health Project,
- ② exclude those that are considered beyond the scope of nursing care, and
- 8 exclude those that are locally obtainable.

2) Policies

① Policy on Natural Environment

This project will select the Equipment that is designed to withstand temperature fluctuation in Uzbekistan. More specifically, they should be able to keep good condition on the indoor temperature range from -15° C to $+45^{\circ}$ C.

2 Policy on Electric Power Supply

The electricity supply in Uzbekistan is relatively stable with the voltage fluctuation of \pm 10%, which will not likely affect the Equipment in a significant way. Since the items require alternating currency (steam sterilizer, electrocardiograph, suction unit, and nebulizer) are to be use only on the spot. Thus voltage regulator (AVR) is not included in the Project. The product to be procured in Japan shall be converted to AC220V or installed with down transformer for the currency adjustment.

③ Policy on Social Condition

Since Uzbekistan is bordered by Afghanistan, the Uzbek government has enforced borderline regulations for the foreigners entering to certain areas of Surkhandarya and Kashkadarya regions. Beside, The three Eastern regions of Fergana, Andijan, and Namangan bordering Kyrgyzstan are the area that Japanese Foreign Ministry has issued a caution to those who plan to travel, since these are the strategic area of the Uzbek Muslim movement.

Under these circumstances, transportation of the Equipment to these 5 regions is to be undertaken by the Uzbek side (to be described further in later sections).

④ Policy on Maintenance and Control of Equipment

In Uzbekistan, Tibmaksulot (formerly Uzmedtechnika), which used to be under the jurisdiction of the Ministry of Health, has branches throughout the country to form a nation-wide service network. The company and the branches have experience in repairing medical equipment from Europe and former-Soviet nations and supplying consumables, as well as delivering and repairing Japanese relevant product. Under this project, each target facility will conclude a contract with Tibmaksulot to entrust the company to supply consumables and repair services. It has been confirmed that the Ministry of Health would extend assistance in case that budgetary shortage could hinder proper equipment maintenance in these facilities.

(3) Policy on Determining the Types and Grades of the Equipment

About 76% of the Equipment for this project can be sourced from Japan under the condition that the product should be available from three or more manufacturers in Japan and which include the products comply with JIS (Japan Industry Standard) or other standards that assure relatively high quality. In case the products are from the third-country, which are required to included to secure the competitiveness at the tender, USA and/or Europe shall be included.

2-2-2 Equipment Plan

(1) Equipment Plan

The initial request consisted of 104 items, including equipment for the studies of anatomical physiology, midwifery, and basic nursing techniques. This project excludes those that do not comply with the above-mentioned policies even if necessary for the education based on "Nursing Models". For detailed information about excluded equipment are to be referred to Annex 5 "Minutes of Discussions" Annex 1 "Equipment List" (those checked in column C were excluded).

1) Equipment for Medical Colleges/Schools

① Equipment for anatomical physiology study:

12 items in the initial request, including human skeletal models, and articulated

skeletal models of cervical, thoracic, lumber spines, etc. shall be excluded as the existing models has been judged to be still adequate.

2 Equipment for midwifery study:

The full-body pregnancy simulator shall be excluded from the project, as other models such as obstetric assistant model, breast model and internal examination model could substitute.

- ③ Equipment for training basic nursing technique:
 - Following Items are excluded due to the specified reasons.
 - Oxygen set: due to the difficulties in procurement.
 - Portable bath and the self-help aid for cooking: as these are deeply related to the life style and customs and considered not necessarily suite in Uzbekistan.
 - Electrocardiograph and the models of nervous, circulatory, and portal systems, as well as head miller and Polichel nose spray: as they are deemed not suitable for the technical levels of the basic nursing education in Uzbekistan.
 - Dryers, cups with handles, and other such items: as they are locally available.
 - Folding stretchers and crutches: since the other equipment could substitute.
 - Urine pack and Ashran for stoma care: due to the local climatic conditions.
 On the other hand, forceps, obstetric stethoscopes and resuscitation set are considered to be including for the effective use of other Items, although these are not requested initially.

2) Equipment for DHQN

- ① The initially requested Neo-natal model for intubations practice is excluded, as they are beyond the scope of nurse's role.
- ② Although not included in the initial request, electrocardiograph, infant bed, pelvis meridian model, and other equipment are to be added since the necessity and validity of those equipment are considered very high.

(2) Quantity to Procure

The quantity of the equipment to be procured under this project is determined based on the number of target facilities: six DHQN and 53 Medical Colleges/Schools, of which 35 have midwifery course and 18, do not.

However, World Bank has delivered relevant equipment under their Pilot Project "Health I" 1998-2003 (hereinafter referred to as "Health I") to seven schools (six of which have midwifery courses) in Fergana, Sirdarya, and Navoi regions in 2002 (as Phase I). Some of the Equipment are the same or similar as those planned under this project. In addition, World Bank plans to supply similar equipment to eight schools (five of which have midwifery courses) in Khorezm, limited area of Fergana regions and the Republic of Karakalpakstan as Phase II in 2003.

Therefore, this project shall exclude those items fulfilled by the "Health I" Project of World Bank (refer to the Table 1).

Generally, the project would procure one set or unit of equipment for each target facility. However, since each facility will conduct hands-on training by dividing the class into three groups of 8 to 10 students each, this project is to supply three sets or units for each school to secure efficient and effective learning.

Table 1 Relevant Equipment with the "Health I" Project by World Bank

| Item | Name of the Equipment | " He | ealth I " | Item | Name of the Equipment | " Hea | lth I " |
|------|--|-----------|-----------|------|-----------------------|-----------|-----------|
| No. | Name of the Equipment | Ist phase | 2nd phase | No. | Name of the Equipment | Ist phase | 2nd phase |
| 3 | Breast model | • | • | 30 | Wheel chair | • | - |
| 4 | Obstetric assistant model set | • | • | 33 | Bed pan | • | |
| 5 | Baby-doll Girl | • | • | 38 | Pelvis measure | • | - |
| 6 | Baby-doll Boy | • | • | 40 | Baby height scale | • | • |
| 9 | Intramuscularly injection model | • | • | 41 | Baby weight scale | • | • |
| 10 | Intravenous injection practice model | • | • | 49 | Kidney tray set | • | - |
| 11 | Urethral catheterization model, male | • | | 53 | Forceps | • | |
| 12 | Urethral catheterization model, female | • | • | 55 | Wash bowl stand | - | • |
| 14 | Steam sterilizer | • | • | 56 | Wash bowl | - | • |
| 16 | Distance test chart | • | • | 57 | Weight scale | • | • |
| 20 | Infant bed | • | - | 59 | Vital capacity scale | • | • |
| 22 | Pelvis meridian model | • | - | 60 | Stop watch | • | - |
| 23 | Anatomical panel set | - | • | 61 | Suction unit | • | • |
| 24 | Fetus growing model | • | • | 62 | Nebulizer | • | • |
| 25 | Sphygmomanometer | • | • | 63 | Stretcher | • | • |
| 27 | Resuscitation set | • | • | 64 | Urinal | • | - |
| 28 | Dressing cart | - | | | Total | 29 | 26 |

Table 2 Lists of the Equipment to be procured under the project

| No | Equipment | Specification | Use | | antity |
|----|-------------------------------------|---|---|-----|--------|
| 1 | Airway management model | Airway tube with laryngoscope | For teaching how to keep airway open | 6 | units |
| 2 | Full-body pregnancy simulator | Models consisted with internal/ external examination, episiotomy practice, palpating the uterus, breast care etc. | For teaching how to palpate the abdomen of pregnant women, how to perform internal examination, how to assist pregnant women during the labor period etc. | 6 | units |
| 3 | Breast massage model | Postpartum breast model | For teaching technique of postpartum breast care | 86 | units |
| 4 | Obstetric assistant model set | Model consisted with main body, placenta and fetus model, can learn the process of childbirth, AC 220V, 50Hz | For teaching how to assist pregnant women during labor period (from first stage to third stage) | 86 | units |
| 5 | Baby-doll, Girl | Waterproof, seamless skin, can be used for bathing, observation, diaper change, suction, umbilical treatment, bottle feeding, urination | For teaching how to give neonate a bathe, how to treat umbilical cord etc. | 86 | units |
| 6 | Baby-doll, Boy | Waterproof, seamless skin, can be used for bathing, observation, diaper change, suction, umbilical treatment, rectal temperature | For teaching how to give neonate a bathe, how to treat umbilical cord etc. | 86 | units |
| 7 | Maternity model | For practicing palpation of the abdomen, auscultation of fetal cardiac sound and measurement of pelvis, AC 220V, 50Hz | For teaching how to palpate the abdomen of pregnant women, Leopold's 4 step maneuver, how to take auscultation of fetal heart | 123 | units |

| | | | sound, how to measure the pelvis | | |
|-----|-----------------------------|---|--|-----|-------|
| 8 | Internal | Silicone or equivalent, model for | For teaching how to examine the | 76 | units |
| | examination | determining the extent of cervical | degree of cervical dilation at the first | | |
| | model | dilation during labor | stage of labor | | |
| 9 | Intramuscularly | Buttock model, with alarm & | For teaching how to choose safe | 114 | units |
| | injection model | alarm light, AC220V, 50Hz | injection site on the buttock and | | |
| | | | teaching technique how to perform | | |
| | _ | | proper intramuscular injection | | |
| 10 | Intravenous | | | 114 | units |
| | injection practice | rubber or equivalent, plastic bottle | site for IV injection and teaching | | |
| | model | container for artificial blood, | technique for insertion on needle, | | |
| 1.1 | TT (1 1 | AC220V, 50Hz | obtaining blood samples etc. | 20 | ٠, |
| 11 | Urethral | Silicon rubber or equivalent, | For teaching how to perform urethral | 38 | units |
| | catheterization model, male | balloon and Nelaton's catheter attached | catheterization of male patients | | |
| 12 | Urethral | Silicon rubber or equivalent, | For teaching how to perform urethral | 114 | units |
| 14 | catheterization | balloon and Nelaton's catheter | catheterization of female patients | 114 | umis |
| | model, female | attached | catheterization of female patients | | |
| 13 | The aged | Weight for the wrist and ankle, | For providing students a simulate | 53 | sets |
| | simulation set | restrictors for the knees, goggles, | experience as elderly whose | | 5005 |
| | | gloves, ear plugs, storage bag etc. | movement are restricted and for | | |
| | | g , I g g g | teaching how to render care to the | | |
| | | | elderly | | |
| 14 | Steam sterilizer | Table top type, stainless, AC220V, | For teaching how to sterilize | 38 | units |
| | | 50Hz with safety mechanism | syringes, forceps etc. | | |
| 15 | Arm rest | Urethane, W100 X D180 X | For extension of arm for IV injection | 159 | units |
| | | H50mm, block or green or brown | | | |
| | | color | | | |
| 16 | Distance test | International (Landolt) type, made | For teaching how to conduct visual | 114 | units |
| | chart | of paper with eye shade and stick | acuity examination | | |
| 17 | Test chart book | International type (Numeral or | For teaching how to conduct color | 159 | units |
| | (for color | Maze) | vision examination | | |
| 1.0 | blindness) | 1.1 /) FOO ACCOUNT FOUR | D (1) (1) (1) | | ٠, |
| 18 | Electrocardiograp | 1ch (or more) ECG, AC220V, 50Hz | For teaching the mechanism of | 6 | units |
| | h | and/or DC battery | electro- cardiograph (ECG) and how | | |
| | | | to take ECG | | |

| | T = | | Γ= | | |
|----|-----------------------------------|--|--|-----|-------|
| 19 | Gatch bed | More, gatch type with stopper & side rails | For practicing techniques of various treatment and care | 159 | units |
| 20 | Infant bed | W800X D420 X H830mm or more, with basket and mattress | For practicing techniques of various treatment and care for the infant | 144 | units |
| 21 | Obstetric comfort chair | For postpartum women and patients with anal disorders | For teaching postpartum care | 59 | units |
| 22 | Pelvis meridian model | Synthetic bone of female pelvis with wire | For teaching the relation between the pelvis and fetus head | 35 | units |
| 23 | Anatomical panel | 28~32 illustrations/ set with storage case | For teaching the anatomy of human body | 45 | sets |
| 24 | Fetus growing model | Fetus model from 1 month to 10 months gestation | For teaching the growth stages of fetus | 24 | units |
| 25 | Sphygmomanome ter | Mercury type (desktop type), 0~300mmHg or more | For teaching how to take blood pressure | 114 | units |
| 26 | Stethoscope (dual) | Double type (for 2person use); Y-tubing | For teaching how to take auscultation | 159 | pcs |
| 27 | Resuscitation set | For adult & neonate with suction unit | For teaching resuscitation | 44 | sets |
| 28 | Dressing cart | W700 X D450 X H800 mm or more, 3 shelves, 2 drawers with casters | techniques For teaching how to pressure dressing changes etc. | 45 | units |
| 29 | Screen | Double panel type, blue, cream or white | For teaching how to secure patients' privacy | 165 | units |
| 30 | Wheel chair | Self operated type, 400mm or more of seat width, swing out & elevating | For teaching techniques of safe transfer of patients between bed and wheel chair | 46 | units |
| 31 | Beads pad | 9 kind of shape (mat, circle etc.), polyester or equivalent | For teaching how to prevent bed sore of recumbent patients | 53 | sets |
| 32 | Kelly's pad (hair shampooing set) | Rubber material with air pump | For teaching how to shampoo the recumbent patients | 159 | units |
| 33 | Bed pan | Stainless for adult, western style, bed pan rack attached | For teaching how to assist in excretion of recumbent patients | 114 | units |
| 34 | Walker | Fold type with 4 casters | For teaching how to secure safe walking of the rehabilitation patients | 53 | units |
| 35 | Forearm support crutches | Size adjustable, 3pcs/set | For teaching how to secure safe walking of the rehabilitation patients | 53 | units |
| 36 | Nursing set | 1 plastic milk bottle (240cc or more), 1 nipple and 1 wash brash per set | For teaching how to secure safe feeding to neonates | 159 | sets |
| 37 | Tub for baby | Sink tank type | For teaching how to secure safe bathing of neonates | 159 | units |
| 38 | Pelvis measure | Martin type, stainless steel | For teaching how to measure the pelvis of pregnant woman | 35 | units |
| 39 | Obstetric stethoscope | Wooden type, length 175mm or more | For teaching how to obtain heart sound of the fetus | 171 | units |
| 40 | Baby height scale | Wooden, measures 900mm or more | For teaching how to measure the height of infants properly | 44 | units |
| 41 | Baby weight scale | Analogue type, weighs 20 kg or more | For teaching how to weigh infants properly | 44 | units |
| 42 | Optometry and otoscope | Ophthalmoscope & otoscope with specular and spare light bulb | For teaching how to examine the condition of eye ground and external auditory canal | 6 | units |
| 43 | Pen light | With spare bulb and battery | For teaching how to examine papillary reflex, condition of oral cavity, pharynx, ear canals etc. | | units |
| 44 | Applicator | Haltmann's type, length of 210mm or more | For teaching how to prepare cotton swabs and its safe usage | 477 | pcs |
| 45 | Eyewash bottle | 300ml or more, glass | For teaching how to conduct eye wash | 159 | units |
| 46 | Eye patch | Saeki style, aluminum | For providing student a simulate experience of patient wearing eye patch and for teaching how to apply it properly | 159 | units |

| 47 | Irrigator | Volume of 1000ml, with gastric tube, rectal tube, clamp and connector | For teaching how to give tube feeding, to perform enema/colonic irrigation etc. | 159 | units |
|----|----------------------|--|---|-----|-------|
| 48 | Vaginal speculum | Cusco type, 1 large and 1 small/set | For teaching how to conduct internal (vaginal) examination | 41 | sets |
| 49 | Kidney tray set | one large & one small unit/ set | For teaching how to dispose waste after dressing change, urethral catheterization, injection etc. | 144 | sets |
| 50 | Catheter tray | W310~330 X D80~95 X H45~65mm, with lid | For teaching proper storage and utilization of sterilized catheters, tubes, etc., | 159 | units |
| 51 | Multi jar | 500ml, φ80~85 X H95~100mm | For keeping alcohol cotton necessary for teaching proper injection technique | 159 | units |
| 52 | Forceps stand | ϕ 90 X H135~145mm, without handle | For teaching how to keep and handle sterilized forceps | 159 | units |
| 53 | Forceps | 2 long forceps (230mm, without teeth) and 1 short forceps (180mm, with teeth)/ set | For teaching antiseptic manipulation | 114 | sets |
| 54 | Pitcher | 1.5L or more, stainless | For proper shampooing, giving bed bath etc., for recumbent patients | 159 | units |
| 55 | Wash bowl stand | For 2 bowls, with casters | For teaching proper hand wash before/after caring isolated patient | 135 | units |
| 56 | Wash bowl | φ 320~360mm, 2pcs/set | Same as Item 55 | 270 | units |
| 57 | Weight scale | Digital type, maximum measurement with 150kg or more | For teaching proper weigh of adults | 38 | units |
| 58 | Height scale | Metal, maximum measurement with 215cm or more | For teaching proper measurement of height | 38 | units |
| 59 | Vital capacity scale | Handy type, range: 1000~7000ml or more, graduation: 100ml or less; with mouthpiece | For teaching proper suction technique | 53 | units |
| 60 | Stop watch | 1/ 5 second, 30 minutes | For teaching how to take accurate pulse rate, respiration rate etc. | 138 | units |
| 61 | Suction unit | Suction pressure, -80kPa or more, 18L/min or more, AC220V, 50Hz | For teaching how to conduct suction properly | 38 | units |
| 62 | Nebulizer | 245kPa or more, AC220V, 50Hz | For teaching proper inhalation technique | 38 | units |
| 63 | Stretcher | Flat type with side rail and mattress | | | units |
| 64 | Urinal | For male use, plastic, with lid | For teaching proper assistance in excretion | | units |
| 65 | Portable toilette | With backrest, withstands 150kg or more, wooden | For teaching how to assist excretion and transfer patient from bed to portable toilet | 53 | units |

2 - 2 - 3 Implementation Plan

(1) Implementation Policy

This project will be implemented in accordance with the framework of the grant aid scheme of the Japanese government, which will be officially commenced at the signing of the Exchange of Notes (E/N) by both the government of Japan and Uzbekistan. Subsequently, a Japanese consultant will design the particulars of the project, according to which the Japanese suppliers will be selected through public tender for the procurement of specified equipment.

1) Organization of the Recipient Country

The organizations of Uzbek side in relation to the Project implementation are as follows:

- Supervising Agency: The Ministry of Health
- Implementing Agency: Personnel, Science and Educational Institutions Department of The Ministry of Health

2) Consultant

Immediately after the signing of the E/N by both governments, a Japanese consultant, in accordance with the procedures of Japan's grant aid scheme, will enter into a consultant agreement with the Ministry of Health of Uzbekistan, which will take effect upon approval by the Japanese government. In accordance with this agreement, the consultant will carry out the following tasks:

- ① Tender preparation phase:
 - Preparation and confirmation of Tender Documents (including specifications) with The Ministry of Health
- ② Tender phase:
 - Selection of supplier(s), and support thereof according to the procurement contract
- ③ Procurement phase:
 - Supervision of the procurement/distribution of the Equipment

3) Supplier

Supplier shall be selected through tender and conclude contract with the government of Uzbekistan. The supplier shall procure the Equipment, transport/ deliver them to the government of Uzbekistan according to the contract. The Equipment (except balky ones¹) shall be sorted out by each Medical Colleges/Schools and the DHQN and shall be transported to the handover places specified in the Table 3.

Table 3 Lists of Handover Places

| _ | | 1 | | |
|---|---------------------------|---------------|--------------|--|
| | | | FD | |
| | Region | City | Code | Final Destinations (FD) |
| | | | A | Medical School of Ministry of Health of Uzbekistan |
| | | | В | First Tashkent Medical Institute |
| 1 | Tashkent Special District | Tashkent City | C | Designated warehouse by the Ministry of Health (stored the equipment for the project site $\bigcirc{\sim}$ of table 4) |
| 2 | Tashkent City | Tashkent City | D | Tashkent Pediatric Institute |
| 3 | Republic of Karakalpaksta | Nukus | E | Nukus Medical College |
| 4 | Khorezm | Urgench | \mathbf{F} | Urgench Medical College |
| 5 | Samarkand | Samarkand | G | Samarkand State Medical Institute |
| 6 | Bukhara | Bukhara | Н | Bukhara State Medical Institute |
| 7 | Djizak | Djizak | I | Djizak Medical College |
| 8 | Navoi | Navoi | J | Navoi Medical School |
| 9 | Sirdarya | Gulistan | K | Gulistan Medical School |

¹ Balky equipment mean such as Full-body pregnancy simulator, Gatch bed, stretcher, etc,

*Final destinations means to where the Equipment is to be delivered by the Supplier.

(2) Scope of Work

Table 4 shows the division of procurement work by the Japanese and Uzbek sides. Installation work is not required for this project.

Table 4 Procurement Work by Japanese and Uzbek Sides

| Work | Japan | Uzbekistan |
|----------------|--|---|
| Procurement | All the Equipment | _ |
| Transportation | Up to the 11 designated handover places (F.D. Code A ~K)as listed in Table 3 above | 1) From the designated warehouse in Tashkent (F.D. Code C) to 18 Facilities of following Region ① Kashkadarya (3 facilities) ② Namangan (3 facilities) ③ Andijan (5 facilities) ④ Surkhandarya (3 facilities) ⑤ Fergana (4 facilities) 2) From 10 handover places to the 31* Medical Colleges/ Schools and DHQN * Note: 10 facilities of handover places are not included in 31. |

(3) Consultant Supervision

Supervisory work for this project shall be carried out at the following steps:

1) Pre-shipment Inspection

Before shipment, a third-party Inspection Agency inspect the Equipment by:

- i) checking the shipping documents against the list of equipment in the contract,
- ii) confirming the delivery dates, and
- iii) verifying the quantity of the equipment and confirming the packing form

2) Final Inspection at the designated delivery places

The Equipment procured shall be transported in containers to the final destinations as specified in Table 3. The consultant shall conduct the final inspections of the Equipment at Tashkent to confirm if the Equipment delivered were in conformity with the specifications and without any damage. The consultant shall complete its works after the approval of the result of final inspection by the Uzbek side.

(4) Quality Control Plan

Among the Equipment to be procured by this project, educational models should be so designed as to withstand the harsh climatic conditions (semi-dry climate, extreme cold/hot temperatures, etc.) in Uzbekistan. To ensure this, submission of the report evidencing the temperature endurance test shall be included in the conditions for participating in the tender. As for as Electrocardiograph, manufacturer shall be the one satisfies ISO 9001.

(5) Procurement Plan

1) Procurement of the Equipment

Table 5 indicates the supply source of each Item.

Table 5 Supply Sources of the Equipment

| | | Source | | | |
|-----|--------------------------------------|---------|-------|---------|---|
| | | Uzbeki- | | 3rd | 1 |
| No. | Equipment | stan | Japan | country | Reason for selecting the sources) |
| 1 | Airway management model | | 0 | 0 | |
| 2 | Full-body pregnancy simulator | | 0 | 0 | 1 |
| 3 | Breast model | | 0 | 0 | In order to secure competitiveness in |
| 4 | Obstetric assistant model set | | 0 | 0 | the tender as there are limited number of manufacture who |
| 5 | Baby-doll Girl | | 0 | 0 | produce similar product of those |
| 6 | Baby-doll Boy | | 0 | 0 | equipment. |
| 7 | Maternity model | | 0 | 0 | 1 |
| 8 | Internal examination model | | 0 | 0 |] |
| | Intramuscularly injection | | | | This product is available from more |
| 9 | m odel | | 0 | | than three manufacturers in Japan. |
| 1.0 | Intravenous injection practice | | | | In order to secure competitiveness in |
| 10 | model | | 0 | 0 | the tender as there are limited |
| 11 | Urethral catheterization model, male | | 0 | 0 | number of manufacture who |
| 11 | Urethral catheterization | | O | U | produce similar product of those |
| 12 | model, female | | 0 | \circ | equipment. |
| | The aged simulation set | | 0 | | |
| | Steam sterilizer | | 0 | | † |
| | Arm rest | | 0 | | † |
| 16 | Distance test chart | | 0 | | 1 |
| | Test chart book (for color | | | | 1 |
| 17 | blindness) | | 0 | | These products are available from |
| 18 | Electrocardiograph | | 0 | | more than three manufacturers in |
| 19 | Gatch bed | | 0 | | -Japan. |
| 20 | Infant bed | | 0 | | 1 |
| 21 | Obstetric comfort chair | | 0 | |] |
| 22 | Pelvis meridian model | | 0 | |] |
| 23 | Anatomical panel set | | 0 | | 1 |
| | | | | | In order to secure competitiveness as |
| | Fetus growing model | | 0 | 0 | same reason above. |
| | Sphygmomanometer | | 0 | | |
| | Stethoscope (dual) | | 0 | | |
| | Resuscitation set | | 0 | | |
| | Dressing Cart | | 0 | | |
| | Screen | | 0 | | These products are available from |
| | Wheel chair | | 0 | | more than three manufacturers in |
| | Beads Pads | | 0 | | Japan. |
| | Kelly's Pad (hair shampooing set) | | 0 | |] |
| | Bed Pan | | 0 | |] |
| | Walker | | 0 | |] |
| 35 | Forearm support crutches | | 0 | | |

| 36 Nursing Set | 0 | |
|---------------------------|---|--|
| 37 Tub for baby | 0 | |
| 38 Pelvis measure | 0 | |
| 39 Obstetric stethoscope | 0 | |
| 40 Baby height scale | 0 | |
| 41 Baby weight scale | 0 | |
| 42 Optometry and Otoscope | 0 | |
| 43 Pen light | 0 | |
| 44 Applicator | 0 | |
| 45 Eyewash bottle | 0 | |
| 46 Eye patch | 0 | |
| 47 Irrigator | 0 | |
| 48 Vaginal speculum | 0 | |
| 49 Kidney tray set | 0 | The second of the second stable for me |
| 50 Catheter tray | 0 | These products are available from more than three manufacturers in |
| 51 Multi Jar | 0 | Japan. |
| 52 Forceps stand | 0 | |
| 53 Forceps | 0 | |
| 54 Pitcher | 0 | |
| 55 Wash bowl stand | 0 | |
| 56 Wash bowl | 0 | |
| 57 Weight scale | 0 | |
| 58 Height scale | 0 | |
| 59 Vital capacity scale | 0 | |
| 60 Stop watch | 0 | |
| 61 Suction unit | 0 | |
| 62 Nebulizer | 0 | |
| 63 Stretcher | 0 | |
| 64 Urinal | 0 | |
| 65 Portable toilet | 0 | |

2) Transportation

The Equipment procured from Japan will be landed in China or Russia, then transported by railway to Chukursoy Station in Tashkent or will be landed in Iran and transported by truck to Tashkent. Those procured in third countries will be transported by railway to Chukursoy Station in Tashkent. All those reached to Tashkent will finally be delivered to the 11 final destinations by the supplier as listed in the Table 2.

(6) Equipment Distribution Plan

The distribution plan of the Equipment is outlined in the Annex 1.

(7) Implementation Schedule

This is a single fiscal year project and thus shall be completed within a year after the signing of the E/N. The overall implementation schedule is outlined in the chart below.

Entire project period (from E/N to handover) : 12 months

From E/N to contract with supplier : 4 months

| | Accumulate months | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|----------------------------|----------------------------|------------|--------|----------|---|---|----------------------------------|--|----------------------------------|-----------------|--------|-------|---------|---------------------------|
| | | ▼ S | ign of | | of Agr | eemer | it on c | onsul | ting se | rvices | 3 | | | |
| E n t i r e | Implementation Design | | | Fina For | l conf rmula prova Tendo Delivo | irmati tion of l of Te er noti | on of tendender I fication | the Prescriber doc Docum on r Doc | roject (ument | letails | 5 | | | |
| e | | | | | A | Signir | g the | Cont | ract wi | th su | pplier | | | |
| r i o d | Procurement Supervision | | Dis | cussi | ns wi | th sup | plier, | appro | wal of Manu of the Pre- | factui Equij | ring & | proc | | nt |
| | works in Uzbekistan | | | work | s in . | Japar | 1 | | | | Final | inspe | ction/l | inland andove antry |

Budgetary year: Single year (FY 2003)

2-3 Obligations of the Recipient Country

The obligations of the recipient country in implementing the Project are as follows.

- ① to transport and distribute the Equipment as follows;
 - ∇ From the warehouse in Tashkent, designated by the Ministry of Health to the 18 facilities (Medical Colleges/Schools or to the DHQN) located in 5 Regions namely Kashkadarya (3 facilities), Namangan (3 facilities), Andijan (5 facilities), Surkhandarya (3 facilities) and Fergana (4 facilities).
 - ∇ From the 10 handover places (as in Table 3) to the 31 facilities which dose not include
 10 handover placed.
- ② to hold seminars continuously for nursing teachers on the improvement of nursing education.
- ③ to carry out periodical monitoring of utilization of the Equipment procured and inform the result to the Japanese side.
- ④ to secure and allocate enough budgets to use and maintain the Equipment procured.
- ⑤ to prepare for the training rooms in each school for nursing practice for efficient use and storage of the Equipment procured.

- ⑥ to coordinate with other donors, if new project is planned with other donors related to this Project.
- ① to facilitate necessary customs clearance and tax exemption procedures.

2-4 Project Operation Plan

In the target facilities, classrooms are assigned to different subjects, and the teacher in charge of each subject is responsible for the equipment and given the key to the classroom. Thus, the educational equipment to be installed under this project will be stored in locked classrooms and properly controlled by the teachers in charge. As for maintenance and repair, Tibmaksulot (former Uzmedtechnika) that used to be working closely with the Ministry of Health is supplying consumables and rendering repair services through its branches which are situated throughout Uzbekistan.

Chapter 3 **Project Evaluation and Recommendations**

Chapter 3 Project Evaluation and Recommendations

3 - 1 Project Effect

3 - 1 - 1 Direct Effects

(1) Medical Colleges/Schools

- ① By supplementing basic equipment and renewing worn out equipment, the students are able to acquire accurate knowledge and precise techniques.
- ② By introducing practical models/equipment required for teaching subjects based on "Nursing Models", the students are able to acquire new nursing concept and better understanding of patient-centered care rather than conventional "treatment based "services.

(2) DHQN

① By procuring the Equipment necessary for expanding skill of the relevant field, the students—are able to acquire knowledge and techniques effectively and efficiently thus can be expected to enhance their leadership quality.

3 - 1 - 2 Indirect Effects

- ① Through qualitative reform of nursing, in other words by providing nursing care based on patients' needs, patients in general will be able to receive safer and more effective care with less burden.
- ② Upgrading of quality nursing care promote awareness of other medical professionals on patient oriented services.

3 - 2 Recommendations

(1) Retraining teachers in line with the "Nursing Models"

The Equipment to be procured by this project do not require technical instructions or guidance, however, whether or not the teachers at each nursing educational facility will be able to utilize the Equipment based on "Nursing Models" is another subject. Diffusion of the concept and methods of "Nursing Models" that were introduced through Japan's technical assistance among the teachers through seminars and other opportunities is desired. Effective planning and coordination of such training courses by the Ministry of Health is highly recommended.

(2) Japanese Technical Assistance

Japan has been extending assistance to Uzbek nursing sector since FY 1999. A Continuance of such technical assistance is expected to further enhance the effects of this project.

(3) Monitoring of the Equipment

To ensure that the Equipment of this project will be used and maintained properly, biannual follow-up inspection at each target institution is recommended. Equipment maintenance should preferably be carried out by keeping records in equipment ledgers under the supervision/guidance of the Ministry of Health.