

別添資料

1. 事前評価調査日程
2. 主要面談者リスト
3. ミニッツ
4. プロジェクト・デザイン・マトリックス（案）（日本語）
5. ジョソール県地図
6. 先方政府実施体制図
7. 砒素対策委員会に関する政令
8. PCM ワークショップ報告

持続的砒素汚染対策プロジェクト（プロテコ） 事前評価調査 日程

1	3月4日	金	日本-バンコク	バンコク
2	3月5日	土	バンコク-ダッカ TG321, 15:00 地方行政局水供給局長 (Joint Secretary) 表敬 15:30 地方行政局水供給課長 (Deputy Secretary) 協議	ダッカ
3	3月6日	日	9:00 日本大使館表敬 11:00 JICA 事務所表敬及び打ち合わせ 12:00 対外経済関係局表敬 14:00 公衆衛生局協議 15:30 保健局協議	ダッカ
4	3月7日	月	7:20 ダッカージョソール (GMZ) 9:00 ジョソール県知事、地方自治担当 (ADLG) 12:15 公衆衛生局県事務所所長 (Executive Engineer) 14:30 ユニオン砒素対策委員会、ワードメンバー 16:30 保健局県事務所所長 (Civil Sergion)	ジョソール
5	3月8日	火	10:00 チョーガチャ郡長 11:00 チョーガチャ郡保健家族計画官 12:00 マルア村利用者組合 14:30 シャシャ郡長 16:00 シャムタ村 (West Para) 利用者組合 17:00 シャムタ村 (Chowdhury Para) 利用者組合	ジョソール
6	3月9日	水	9:30-17:00 ジョソール PCM ワークショップ	ジョソール
7	3月10日	木	14:00 ジョソール県知事 16:00 公衆衛生局県事務所所長	ダッカ
8	3月11日	金	団内打ち合わせ	ダッカ
9	3月12日	土	事前準備 14:00 合同会議 (地方行政局、公衆衛生局、保健局他)	ダッカ
10	3月13日	日	10:30 地方行政局 団内打ち合わせ	ダッカ
11	3月14日	月	10:30 APSU 12:30 BAMWASP 14:00 UNICEF 16:00 DANIDA	ダッカ
12	3月15日	火	13:00 地方行政局 15:00 UPI	ダッカ
13	3月16日	水	団内打ち合わせ 15:00 ミニッツ署名 (対外経済関係局)	ダッカ
14	3月17日	木	団内打ち合わせ 14:00 JICA 事務所報告 16:00 日本大使館報告	ダッカ
15	3月18日	金	ダッカーバンコク TG322	機内
16	3月19日	土	日本	

主要面談者リスト

1. 地方行政局 (Local Government Division)、地方自治農村開発組合省
 - (1) Mr. Md. Moklesur Rahman, 水供給局長 Joint Secretary (Water Supply)
 - (2) Mr. M. Shafiqul Islam, 水供給課長 Deputy Secretary (Water Supply)
 - (3) Mr. Ashok Madhabroy, 水供給課職員 Senior Assitant Secretary (Water Supply)

2. 対外経済関係局 (Economic Cooperation Division)、大蔵省
 - (1) Mr. M. Emdadul Haque, 日本課長 Deputy Secretary

3. 公衆衛生局 (Department of Public Health and Engineering)
 - (1) Mr. S.M. Ihtishamul Huq, 副局長 (地下水担当) Superintending Engineer, Ground Water Circle
 - (2) Mr. Md Saiful Rahman, ジョソール県事務所所長 Executive Engineer, Jessore
 - (3) Mr. Mr. Md. Abul Hossain ジョソール県事務所エンジニア

4. 保健局
 - (1) Dr. Hd Siddique Rahman, 砒素プログラムマネージャー (補佐) Deputy Program Manager
 - (2) Mr. Abul Bashar Md. Khoshru, ジョソール県事務所所長 Civil Sergion
 - (3) Mr. Dr. Md. Salah Uddin Khan, チョーガチャ郡保健所長 UHFPO, Chowgacha

5. ジョソール県事務所
 - (1) Mr. Md. Abdul Wazed, ジョソール県知事 Deputy Commissioner
 - (2) Mr. Md. Rafiqul Islam, 地方自治担当 Assistant Director, Local Government

6. 郡事務所
 - (1) Mr. Md. Laisur Rahman, シャシャ郡長 UNO Sharsha
 - (2) Mr. Ashok Kumar Debnath, チョーガチャ郡長 UNO Chowgacha

7. 日本大使館
 - (1) 堀口松城大使
 - (2) 宇喜多秀俊公使
 - (3) 紀谷昌彦参事官
 - (4) 松本曜一書記官

8. JICA 専門家
 - (1) 緒方隆二 砒素対策アドバイザー (地方行政局配属)
 - (2) 米川直之 砒素対策アドバイザー (公衆衛生局配属)

MIMUTES OF MEETING BETWEEN
 THE JAPANESE PREPARATORY STUDY TEAM
 AND
 THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
 ON
 JAPANESE TECHNICAL COOPERATION PROJECT
 FOR
 SUSTAINABLE ARSENIC MITIGATION
 UNDER THE INTEGRATED LOCAL GOVERNMENT SYSTEM

The Japanese Preparatory Study Team (hereinafter referred to as "the team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), headed by Mr. Noriaki Nagatomo visited the people's republic of Bangladesh from March 5 to March 18, 2005 for the purpose of preparatory study of the technical cooperation project concerning sustainable arsenic mitigation under integrated local government system (hereinafter referred to as "the project").

During its stay in Bangladesh, the team exchanged their views and had a series of meetings with concerned government officials.

As a result of meetings, both sides agreed the matters referred to in the documents attached hereto.

Dhaka, March 16, 2005

永友紀章

Noriaki Nagatomo
 Leader
 The Japanese Preparatory Study Team
 Japan International Cooperation Agency



M. Emadatul Haque
 Deputy Secretary
 Economic Relations Department
 Ministry of Finance



M. Shafiqul Islam
 Deputy Secretary
 Local Government Division
 Ministry of Local Government, Rural
 Development & Co-operatives

ATTACHED DOCUMENT

I. Purposes of the study

The study was conducted with a view to achieving the following purposes;

- To collect basic information and data on the situation of arsenic mitigation in Bangladesh and in Jessore
- To confirm needs of Bangladesh through field visits and a participatory workshop
- To agree on a basic framework of the project including project purpose, implementation system, and necessary measures born by Japanese side and Bangladeshi side
- To evaluate the expected achievement of the project

II. PCM workshop

For the purpose of identifying and clarifying the objective of the Project, the Team and the Bangladeshi side held a Project Cycle Management (hereinafter referred to as "PCM") workshop during the study. Through the workshop, the participants identified the means of achieving the project goal and designed the process of the Project. Attendees of the workshop are shown in Annex 1.

1. Findings from the Workshop

The participants analyzed the problems, identified the objectives and created consensus on the outline of the Project.

2. Draft of the Project Design Matrix

The Team has shown a draft of the Project Design Matrix (hereinafter referred to as "PDM") to the Bangladeshi side in Annex 2 at the joint meeting held in Dhaka on March 12, 2005 (Participants list attached as Annex 3). The PDM indicates the entire Project components, such as the project purpose, the outputs, the activities and the necessary inputs, as well as the important assumptions and the pre-conditions of the Project. The Bangladeshi side and Japanese side tentatively agreed the contents of the PDM, although it will be finalized later.

III. Framework of the project

For the formulation of the master plan of the Project, both sides tentatively confirmed the followings as the major items of the plan. This plan was examined based on the



request from Bangladeshi side.

1. The title of the Project

Project for Sustainable Arsenic Mitigation under the Integrated Local Government System in Jessore

2. Duration of the project

The duration of the project will be three (3) years from 2005. The date of the project's commencement will be clarified in the R/D to be agreed by the both parties.

3. Project Target

1) Target Area

Sharsha Upazila and Chowgaccha Upazila, Jessore District

2) Target Groups

Villagers in the Target Area, Line Department and Local Government Institutions

4. Overall Goal

- Health damages due to arsenic-contaminated drinking water are to be prevented/improved in the Project Target Area.
- Local Government Institutions (LGIs) capacity in implementing arsenic mitigation is strengthened.

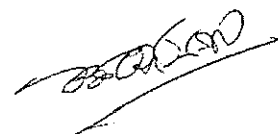
5. Project Objectives

Sustainable arsenic mitigation is carried out with villagers' initiatives.

6. Expected Outputs

- 1) Conditions for arsenic mitigation carried by villagers are prepared.
- 2) Arsenic mitigation activities are coordinated by Arsenic Mitigation Committees.
- 3) Technical support related to installations, maintenance and operation of various alternative water devices are carried out by DPHE.
- 4) Health conditions of arsenicosis patients are managed by doctors and health workers.
- 5) The outcome of the Project is disseminated.

7. Activities



- 1-1 Produce guidelines on participatory arsenic mitigation.
 - 1-2 Conduct awareness activities.
 - 1-3 Form Users Committees.
 - 1-4 Establish an application-approval system for installation and repair of alternative water devices.
 - 1-5 Install alternative water devices.
 - 1-6 Provide training on maintenance and operation of alternative water devices to villagers.
- 2-1 Provide trainings to Arsenic Mitigation Committees at District, Upazila, Union and Ward levels.
 - 2-2 Hold Arsenic Mitigation Committees at District, Upazila, Union and Ward levels.
 - 2-3 Make a framework of planning and coordination for arsenic mitigation activities in their jurisdiction.
- 3-1 Provide training to DPHE officers on alternative water devices.
 - 3-2 Conduct preliminary survey on alternative water device installation.
 - 3-3 Provide with appropriate guidance for alternative water device installation.
 - 3-4 Provide training to Users Committees and building constructors on alternative water device.
- 4-1 Provide training to doctors and health workers.
 - 4-2 Identify arsenicosis patients.
 - 4-3 Manage data on arsenicosis patients at Upazila Health Complex.
 - 4-4 Provide arsenicosis patients with appropriate guidance.
- 5-1 Holds a JCC meeting hosted by LGD once a year.
 - 5-2 Produces and distributes report(s) to stakeholders.
 - 5-3 Introduce the outcome of the Project at workshops.

IV. Measures to be taken by the both sides

For the implementation of the project, both sides agreed to take necessary measures mentioned below.

I. Japanese side

The Japanese side will take the following measures within the budget allocated for the project.

- 1) Dispatch of experts 6-12
A list of experts is attached as Annex 4.
- 2) Overseas training 1-2 per year
- 3) Provision of equipment
A tentative list of equipment is attached as Annex 5.
- 4) Expenses necessary for implementation of the project
(Project staff will be hired by JICA under this expenses following its procedures.)

2. Bangladeshi side

The Bangladesh side will take the following measures at its expense.

- 1) Assignment of personnel
 - 1-1) The Bangladeshi side assured the counterpart for the project as Annex 6. The role of each counterpart was agreed as described in Annex 7.
 - 1-2) The Bangladeshi side agreed that Local Government Division should inform DPHE, DGHS, DC office, concerned Upazilas and Unions by April 15th in order to ensure that they would extend necessary cooperation for implementation of the project including providing office spaces and bearing running cost such as electricity and water.

2) Land, building and facilities

The Bangladeshi side assured that it would provide sufficient office space to the project as Annex 8.

3) Allocation of necessary budget

- 2-1) Salaries and other allowances for the counterpart personnel
- 2-2) Bearing running expenses for the office spaces such as electricity and water
- 2-3) Custom duties and other fiscal charges of a similar nature, cost for custom clearance, storage and domestic transportation for the equipment provided by the Japanese side
- 2-4) Other contingency expense related to the project

4) TAPP

The Bangladeshi side assured that Local Government Division would prepare TAPP and other necessary documents for implementation of the project and TAPP would be

approved by the end of May.

V. Others

1) Joint Coordination Committee

Both sides agreed to establish Joint Coordination Committee during the project period so that it can give guidance on activities of the project and coordinate activities among concerned stakeholders. A draft members' list and other details are mentioned in Annex 9.

2) Approximate budget provided by Japanese side for the project

Approximate budget provided by Japanese side for the project will be roughly 20 crore Taka. The amount will be examined based on the result of the study and through finalization of the project by Japanese side. It should be also subject to budget availability of JICA.

Annex 1: Attendance list of PCM workshop in Jessore

Annex 2: Draft PDM

Annex 3: Attendance list of the joint meeting held in Dhaka

Annex 4: A tentative list of experts from Japan

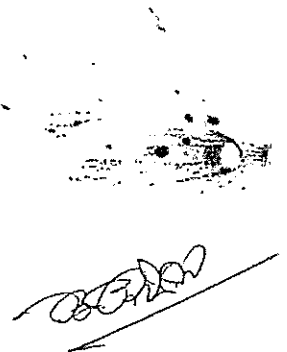
Annex 5: A tentative list of equipment provided by the Japanese side

Annex 6: A list of counterpart from the Bangladeshi side

Annex 7: Role of each counterpart

Annex 8: A list of building and facilities

Annex 9: Joint Coordination Committee



Project Planning Workshop
Sustainable Arsenic Mitigation

Sl #	Name	Designation
1	Mr. Md. Safiqul Islam	Deputy Secretary of LGD
2	Mr. Md. Abdul Wazed	Deputy Commissioner, Jessore
3	Mr. Abul Bashar Md. Khoshru	Civil Surgeon, Jessore
4	Mr. Md Saifur Rahman	Executive Engineer of Jessore DPHE
5	Mr. Dr. Md. Mosharraf Hossain	Deputy Civil Surgeon, Jessore
6	Mr. Md. A. Zaman	Sr. HEO, Jessore
7	Mr. Md. Rafiqul Islam	ADLG, Jessore
8	Mr. Md. Abul Hossain	SDE, DPHE, Jessore
9	Mr. Md. Laibur Rahman	UNO, Sharsha
10	Mr. Ashok Kumar Debnath	UNO, Chowgacha
11	Mr. Dr. Md. Salah Uddin Khan	UH & FPO, Chowgacha
12	Mr. Md. Abdul Aziz	Sub-Assistant Engineer, Sharsha
13	Mr. Md. Golam Rabbanni	Sub-Assistant Engineer, Chowgacha
14	Mr. Md. Abdur Razzak Mollah	Chairman, Bagachara Union, Sharsha
15	Mr. Md. Mofijul Islam Chotto	Chairman, Goga Union, Sharsha
16	Mr. Md. Abdur Rahman	Chairman, Jagodispur Union, Chowgacha
17	Mr. Md. Shohidul	Engineer, PWD, Jessore
18	Mr. Md. Abdur Razzak	Chairman, Village AMC, Marua, Chowgacha
19	Mr. Md. Yamanur Rahman	UP Member, Kayba W # 9, Sharsha
20	Mr. Md. Nizam Uddin	UP Member, Kayba W # 7, Sharsha
21	Mr. Ashok Kumar Ghosh	UP Member, Goga W # 4, Sharsha
22	Mrs. Jahanara	Chairman of dadkhali Khaldarpara User Committee & UP Member, Kayba W # 1,2,3 (Fe), Sharsha
23	Mr. Md. Shahajahan Kabir	Chairman, Goga Karigor Para User's Committee
24	Mr. Md. Sher Ali Biswas	Chairman, Samta West Para User's Committee
25	Mrs. Amena Khatun	UP Member, Goga W # 1,2,3 (Fe), Sharsha
26	Mrs. Jahanara Khatun	UP Member, Bagachara W # 7,8,9 (Fe), Sharsha
27	Mr. Nokiaki Nagatomo	JICA Preliminary Evaluation Survey Mission
28	Mr. Takuya Sugawara	JICA Preliminary Evaluation Survey Mission
29	Mr. Kazuyuki Kawahara	JICA Preliminary Evaluation Survey Mission
30	Ms. Shina Okaichi	JICA Preliminary Evaluation Survey Mission
31	Ms. Asako Takahashi	JICA Preliminary Evaluation Survey Mission
32	Mr. Naoyuki Yonekawa	JICA Expert

33	Mr. Ryuji Ogata	JICA Expert
34	Mr. Julfikar Ali	JICA Deputy Director
35	Mr. Tarun Kanti Hore	Asia Arsenic Network
36	Mr. Asadul Latif	Asia Arsenic Network
37	Mr. Kamruzzaman	Asia Arsenic Network
38		

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b2



Project Design Matrix (PDM)

Project Name: Project for Sustainable Arsenic Mitigation under the Integrated Local Government System in Jharkhand
 Target Group: Villagers in the Target Area and Line Department and Local Government Institutions (LGIs)
 Target Area: Soran, Udayalgarh and Chhota Udayalgarh, Jharkhand District

Overall Goal	Objectively Verifiable Indicators	Means of Verification	Important Assumptions
Health damages due to arsenic-contaminated drinking water are to be prevented/improved in the Project Target Area	<ul style="list-style-type: none"> The symptoms of arsenicosis patients are improved The number of new arsenicosis patients caused by arsenic is decreased The number of overt arsenic mitigation activities are increased 	<ul style="list-style-type: none"> Medical record of Udayalgarh Health Complex Business record at LGIs 	<ul style="list-style-type: none"> Arsonic exposures apart from arsenic-contaminated drinking water do not occur Arsonic concentrations does not increase drastically Government of Bangladesh policies for water supply are not changed
Local Government Institutions (LGIs) capacity in implementing arsenic mitigation is strengthened	<ul style="list-style-type: none"> XXX of the alternative water devices installed by the Project are maintained and operated by villagers Ratio of arsenicosis patients who manage their own health increases by XXX 	<ul style="list-style-type: none"> Baseline/Follow-up surveys by the Project Participatory workshops with villagers Interview with villagers Interview with relevant institutions 	<ul style="list-style-type: none"> Economic crisis does not occur Serious drought does not occur Most of trained personnel in the field of arsenic mitigation are not transferred
Project Purpose	<ul style="list-style-type: none"> 1-1 The number of villagers who drink safe water is increased. 1-2 Villagers understand health effect due to arsenic. 2 All sites and options of alternative water devices are decided by Arsenic Mitigation Committees. 3-1 All installed alternative water devices are constructed with technical support from DPHE. 3-2 Technical responses requested from villagers are increased. 4 The number of arsenicosis patients who have received residence on health care from medical personnel is increased. 5 The number of stakeholders aware of the outcome of the Project are increased. 	<ul style="list-style-type: none"> Survey by the Project (Interview/Questionnaire with stakeholders) Minutes of Arsenic Mitigation Committees. Interview/Questionnaire with Line Department and LGIs Business record at DPHE Jessore and DPHE Udayalgarh offices Interview with relevant institutions (DPHE and Users) Health management data and interview with relevant persons (medical personnel and arsenicosis patients) Survey by the Project (Interview/Questionnaire with stakeholders) 	<ul style="list-style-type: none"> Government of Bangladesh policies for arsenic mitigation are not changed Considerable natural disaster deterioration of peace and order, and political disorders do not take place Quality of water resource is not out completely deteriorated
Outcome	<ul style="list-style-type: none"> 1 Conditions for arsenic mitigation carried by villagers are prepared 2 Arsenic mitigation activities are coordinated by Arsenic Mitigation Committees. 3 Technical support related to installation, maintenance and operation of various alternative water devices are carried out by DPHE. 4 Health condition of arsenicosis patients are managed by doctors and health workers 5 The outcome of the Project is disseminated. 	<ul style="list-style-type: none"> Survey by the Project (Interview/Questionnaire with stakeholders) Minutes of Arsenic Mitigation Committees. Interview/Questionnaire with Line Department and LGIs Business record at DPHE Jessore and DPHE Udayalgarh offices Interview with relevant institutions (DPHE and Users) Health management data and interview with relevant persons (medical personnel and arsenicosis patients) Survey by the Project (Interview/Questionnaire with stakeholders) 	<ul style="list-style-type: none"> Economic crisis does not occur Serious drought does not occur Most of trained personnel in the field of arsenic mitigation are not transferred
Activity	<ul style="list-style-type: none"> 1-1 Produce guidelines on participatory arsenic mitigation 1-2 Conduct awareness activities. 1-3 Form Users Committees. 1-4 Establish an application-approval system for installation and repair of alternative water devices. 1-5 Install alternative water devices 1-6 Provide training on maintenance and operation of alternative water devices to villagers 2-1 Provide technical support to Arsenic Mitigation Committees at District, Udayalgarh and Ward levels 2-2 Help Arsenic Mitigation Committees at District, Udayalgarh, Union and Ward levels 2-3 Make a framework of planning and coordination for arsenic mitigation activities in their jurisdiction. 3-1 Provide training to DPHE officers on alternative water devices 3-2 Conduct preliminary survey on alternative water device installation 3-3 Provide with appropriate guidance for alternative water device installation 3-4 Provide training to Users Committees and building constructors on alternative water device 4-1 Provide training to doctors and health workers 4-2 Identify arsenicosis patients 4-3 Manage data on arsenicosis patients at Udayalgarh Health Complex 4-4 Provide awareness materials with appropriate guidance 5-1 Hold a JCC meeting hosted by LCD once a year 5-2 Produce and distribute report(s) to stakeholders 5-3 Introduce the outcome of the Project at workshops 	<ul style="list-style-type: none"> Dispatch of Experts Project Manager Coordinator Coordination of LGIs Community participation/Awareness Installation of alternative water devices Public health Others Provision of equipment Overseas Training Operational costs in Bangladesh 	<ul style="list-style-type: none"> Government of Bangladesh policies for arsenic mitigation are not changed Considerable natural disaster deterioration of peace and order, and political disorders do not take place Quality of water resource is not out completely deteriorated
Assessment	<ul style="list-style-type: none"> 1-1 Produce guidelines on participatory arsenic mitigation 1-2 Conduct awareness activities. 1-3 Form Users Committees. 1-4 Establish an application-approval system for installation and repair of alternative water devices. 1-5 Install alternative water devices 1-6 Provide training on maintenance and operation of alternative water devices to villagers 2-1 Provide technical support to Arsenic Mitigation Committees at District, Udayalgarh and Ward levels 2-2 Help Arsenic Mitigation Committees at District, Udayalgarh, Union and Ward levels 2-3 Make a framework of planning and coordination for arsenic mitigation activities in their jurisdiction. 3-1 Provide training to DPHE officers on alternative water devices 3-2 Conduct preliminary survey on alternative water device installation 3-3 Provide with appropriate guidance for alternative water device installation 3-4 Provide training to Users Committees and building constructors on alternative water device 4-1 Provide training to doctors and health workers 4-2 Identify arsenicosis patients 4-3 Manage data on arsenicosis patients at Udayalgarh Health Complex 4-4 Provide awareness materials with appropriate guidance 5-1 Hold a JCC meeting hosted by LCD once a year 5-2 Produce and distribute report(s) to stakeholders 5-3 Introduce the outcome of the Project at workshops 	<ul style="list-style-type: none"> Survey by the Project (Interview/Questionnaire with stakeholders) Minutes of Arsenic Mitigation Committees. Interview/Questionnaire with Line Department and LGIs Business record at DPHE Jessore and DPHE Udayalgarh offices Interview with relevant institutions (DPHE and Users) Health management data and interview with relevant persons (medical personnel and arsenicosis patients) Survey by the Project (Interview/Questionnaire with stakeholders) 	<ul style="list-style-type: none"> Economic crisis does not occur Serious drought does not occur Most of trained personnel in the field of arsenic mitigation are not transferred
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Attention

Meeting of co-ordinating group of JICA assisted project

Venue Conference room
Chair Md. Moklesur Rahman

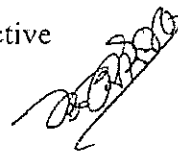
Date 12.3.05

Name & Signature of the Participants

No.	Name & Designation	Organization	Phone No.	Signature
	Name H. Shahjahan Saha Designation Deputy Secretary (125)	LGD	716-8579	
	Name Dr. Md. Siddiqueur Rahman Designation DPH (Arsenic)	DBHS	9899207	
	Name M. EMDADUL HAQUE Designation Deputy Secretary	ERD	9119311	
	Name S.M. Ibtishamul Haq. Designation S.E. Ground Water Circle	DAHE	9343374	
	Name Md. Syedul Haque Designation Gen. Asst. Chd.	LGD	7173318	
	Name Zulfikar Ali Designation	JICA		
	Name Naynki Tonkenu Designation	DPHE/JICA		
	Name Takuya Suganuma Designation Deputy Resident Rep.	JICA		
	Name Keriaki NARA TOMO Designation Add. Res. Rep. Landor of Missiv	JICA		
	Name Asako Takahashi Designation Asia Arsenic Network	Asia Arsenic Network		
	Name Ryuji Ogata Designation Arsenic Mitigation Advisor	LGD/JICA		
	Name Shina OKAICHI Designation Consultant	JICA/GLM		

LIST OF JAPANESE EXPERTS

1. Chief Advisor / Project Manager
2. Project Coordinator
3. Coordination of local government institutions
4. Community Participation / Awareness
5. Installation of alternative water devices
6. Public Health
7. Other short term experts will be assigned when necessary for smooth and effective implementation of the project



LIST OF MACHINERY AND EQUIPMENT

1. 4 Wheel Drive Jeep 2
2. Other materials and equipment necessary for developing capacity of stakeholders will be provided based on the mutual agreement.

Notes: The contents, specifications and quantity of equipment to be provided each year will be discussed in principle every year between the Japanese experts and the Bangladesh counterpart personnel based on the annual plan of the project, within the allocated budget of the Japanese fiscal year.



LIST OF BANGLADESH COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Local Government Division, Ministry of Local Government, Rural Development & Co-operatives
 - Deputy Secretary, Water Supply
2. Deputy Commissioner's office
 - Deputy Commissioner, Chairman of District Arsenic Mitigation Committee
 - Deputy Director, Local Government, Jessore
3. Department of Public Health and Engineering
 - Superintending Engineer, DPHE
 - Executive Engineer, DPHE Jessore
 - Sub Assistant Engineer, Sharsha and Chowgacha
4. Directorate of Health Services
 - Deputy Programme Manager (Arsenic), DGHS
 - Civil Surgeon, Jessore
 - UHFPO in Sharsha and Chowgacha
5. UNO of Sharsha, Chowgacha, Chairmen of Upazila Arsenic Mitigation Committee
6. Union Chairmen under Sharsha and Chowgacha Upazila, Chairmen of Union Arsenic Mitigation Committee



ROLE OF EACH COUNTERPART

1. Deputy Secretary, Local Government Division
 - Overall management and supervision of the project
 - Coordination among relevant ministries and organization
 - Necessary procedures, guidance and instruction for implementation of the project
 - Organizing Joint Coordination Committee
 - Bearing cost related to equipment provided by the project such as custom duty, clearance cost and internal transportation etc.

2. Deputy Commissioner
 - Convening Arsenic Mitigation Committee
 - Coordination among relevant stakeholders in Jessore for the project
 - Providing office space for the project at Deputy Commissioner's office
 - Bearing running cost for the office such as electricity and water

3. Deputy Director for Local Government, Jessore
 - Focal point of the project in Jessore
 - Liaison with LGD, DC, other government organizations and the project

4. Department of Public Health and Engineering in Jessore
 - Implementation of concerned activities described in the draft PDM with the project support

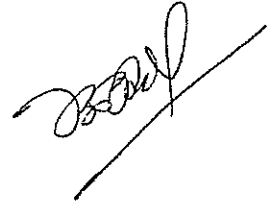
5. Civil Surgeon office in Jessore
 - Implementation of concerned activities described in the draft PDM with the project support

6. UNO of Sharsha and Chowgacha
 - Convening Upazila Arsenic Mitigation Committee and taking a lead of concerned activities described in the draft PDM with the project support
 - (Chowgacha) Providing office spaces with basic facilities for the project in Upazila complex
 - (Chowgacha) Bearing running costs for the offices such as electricity, gas and

water etc.

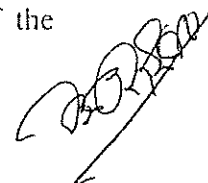
7. Union Chairmans of each union

- Convening Union Arsenic Mitigation Committee and taking a lead of concerned activities described in the draft PDM with the project support



LIST OF BUILDINGS AND FACILITIES

1. Project offices and facilities at Jessore Deputy Commissioners Office and DPHE Executive Engineer Office, and at Chowgacha Upazila Complex
2. Other facilities mutually agreed upon as necessary for the implementation of the project



JOINT COORDINATION COMMITTEE

The Joint Coordination Committee, which consists of both the Japanese side and the Bangladeshi side, will be established for the smooth and effective implementation of the project.

1. Functions

The Joint Coordination Committee will meet at least once a year or whenever necessity arises in order to fulfill the following functions;

- 1-1. To formulate the Annual Plan of Operation of the project
- 1-2. To review the overall progress and achievement of the project
- 1-3. To exchange views on major issues arising from or in connection with implementation of the project and to give guidance to the project and the Bangladesh counterparts if necessary

2. Composition

2-1. Chairperson

Joint Secretary (Water Supply), Local Government Division

2-2. Co-chairperson

Resident Representative, JICA Bangladesh Office

2-3. Members

- Bangladeshi side

Deputy Secretary (Water Supply), Local Government Division

Deputy Commissioner, Jessore

Deputy Secretary, ERD

Deputy Chief, Local Government Division

Civil Surgeon, Jessore

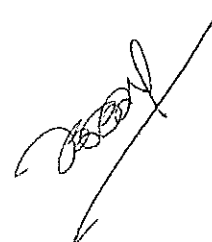
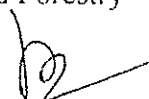
Executive Engineer DPHE, Jessore

Senior Assistant Secretary, Local Government Division

Representative from Planning Commission

Representative from IMED

Representative from Ministry of Environment and Forestry

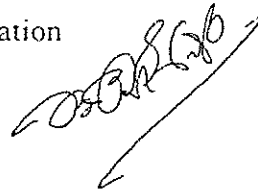


Representative from BUET
Representative from Directorate General of Health Services
Representative from Department of Public Health Engineering
Representative from National Institute of Preventive & Social Medicine (NIPSOM)
UNO (from respective Upazila)
Deputy Director, Local Government, Jessore

- Japanese side

Official(s) in charge, JICA Bangladesh Office
Experts of the project

Note: Official(s) of Embassy of Japan to Bangladesh may attend the Joint Coordination Committee as observer(s).



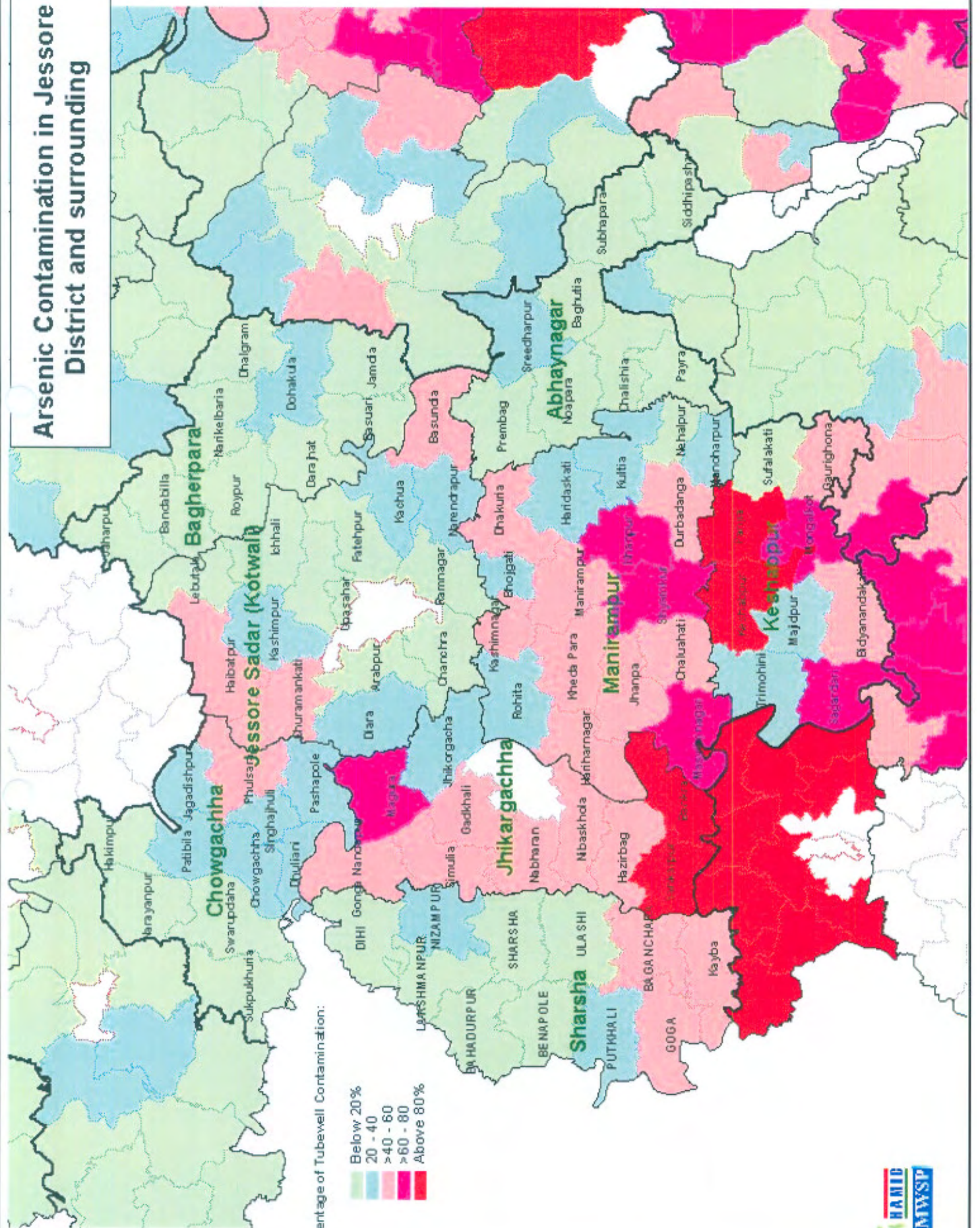
プロジェクト・デザイン・マトリックス(PDM)

ターゲット・グループ: プロジェクト対象住民、地方行政機関
対象地域: ショーンホルム県シヤ郡、チョーガチャ郡
期間: 2005年より3年間

PDM Ver.1
作成日: 2005年3月13日

上位目標	プロジェクトの要約	指標	指標データ入手手段	外部条件
プロジェクト名: 持続的砒素汚染対策プロジェクト 日本側実施機関: 国際協力機構およびアジア砒素ネットワーク ハンガリー側実施機関: 地方自治局	プロジェクトの要約	<p>砒素中毒患者の症状が改善される</p> <ul style="list-style-type: none"> 新たな砒素中毒患者の発生が減少する 地方行政機関による砒素対策活動の実績数が増加する <p>設置した代替水源の80%が住民により維持管理される</p> <ul style="list-style-type: none"> 自己の健康を管理する砒素中毒患者が50%増加する 	<p>病院のデータ</p> <p>地方行政機関の業務記録</p> <p>プロジェクトの調査(ベールスライン・フォローアップサーベイ)</p> <p>住民、関係機関へのインタビュー</p> <p>住民との参加型ワークショップ</p>	<ul style="list-style-type: none"> ハンガリー政府の地方自治に関する政策や方針が変更されない 飲料水以外の砒素による曝露が発生しない 砒素汚染度が著しく高くならない
プロジェクト目標	住民が主体となった持続可能な砒素汚染対策が実施される			
アウトプット				
1 住民による砒素汚染対策実施の条件が整う		<p>1-1 安全な水を飲む住民が増加する</p> <p>1-2 住民が砒素による健康被害について理解する</p> <p>2 すべての代替水源施設の設置場所と種類が砒素対策委員会により決定される</p> <p>3-1 設置されたすべての代替水源施設がDPHEの技術支援のもとに建設される</p> <p>3-2 利用者組合により要請された技術支援への対応が増加する</p> <p>4 医療関係者により健康被害管理指導を受けた砒素中毒患者が増加する</p> <p>5 プロジェクトの成果を知る砒素対策関係者が増加する</p>	<p>プロジェクトの調査結果(関係者へのインタビュー・アンケート)</p> <p>砒素対策委員会の議事録、地方行政機関へのインタビュー・アンケート</p> <p>DPHEジョイントおよびDPHE部署事務所業務記録関係者(DPHEおよび利用者組合)へのインタビュー</p> <p>健康被害管理データ、関係者(医療関係者および砒素中毒患者)へのインタビュー・アンケート</p> <p>プロジェクトの調査(関係者へのインタビュー・アンケート)</p>	<ul style="list-style-type: none"> 経済的混乱が発生しない 著しい干ばつが発生しない トレーニングを受けた砒素汚染対策に関わる人材の多くが異動しない
活動				
1-1 住民参加型砒素対策ガイドラインを作成する				
1-2 啓発活動を実施する				
1-3 利用者組合を結成する				
1-4 代替水源施設の建設・修繕に係る申請プロセスを作る				
1-5 代替水源施設を建設する				
1-6 維持管理方法に関するトレーニングを行う				
2-1 県、郡、ユニオン、ワードレベルの砒素汚染対策委員会に対してトレーニングを行う				
2-2 県、郡、ユニオン、ワードレベルの砒素対策委員会を開催する				
2-3 管轄内の砒素汚染対策活動を調査、計画できる仕組みを作る				
3-1 DPHE職員に代替水源に関するトレーニングを行う				
3-2 代替水源設置の事前調査を実施する				
3-3 代替水源建設を指導する				
3-4 利用者組合及び建設業者に対して代替水源に関するトレーニングを行う				
4-1 医師及び保健従事者に対してトレーニングを行う				
4-2 患者の検診を行う				
4-3 郡病院に砒素中毒患者のデータを管理する				
4-4 砒素中毒患者に適切な指導をする				
5-1 年1回地方自治局主催のJOCミーティングを開催する				
5-2 報告書を作成し関係機関に配布する				
5-3 成果をワークショップ等で発表する				
			<p>投入</p> <p><日本側></p> <ol style="list-style-type: none"> 専門家派遣 プロジェクト・マネージャー 調整員 地方行政の組織づくり 住民参加・啓発 代替水源設置 公衆衛生・保健 その他 <p><ハンガリー側></p> <ol style="list-style-type: none"> カウンタートパートの配置 土地、建物、施設を提供 ローカルコスト 間接 	<ul style="list-style-type: none"> ハンガリー政府の砒素汚染に関する政策や方針が変更されない 著しい自然災害、治安の悪化、政治的混乱などが発生しない 水源の著しい水質悪化が発生しない
				<p>前提条件</p> <ul style="list-style-type: none"> 県事務所、郡事務所、ユニオン議会、DPHE、DQHS、および県、郡、ユニオン、ワード各砒素対策委員会が本プロジェクトに参加する

Arsenic Contamination in Jessore District and surrounding

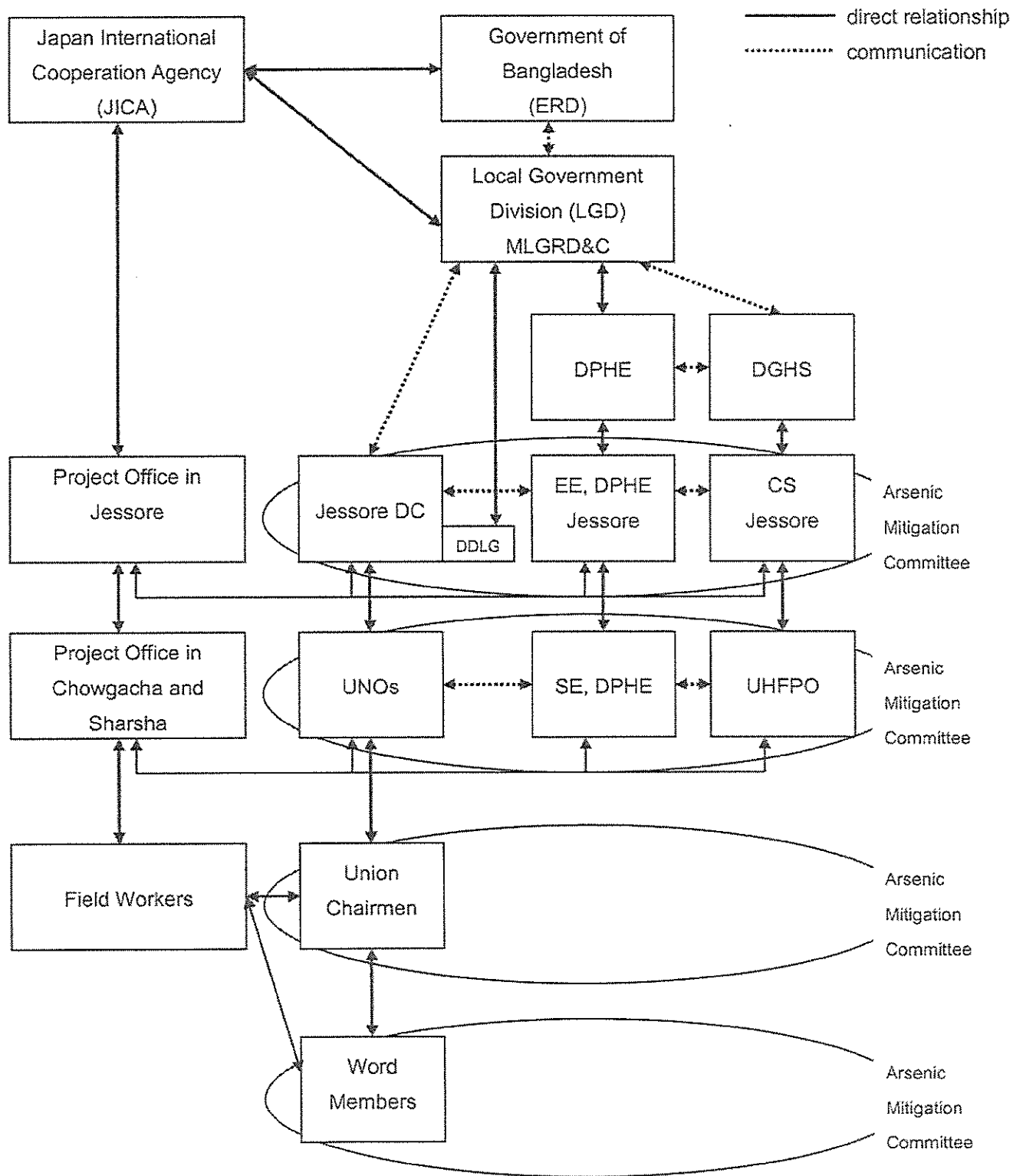


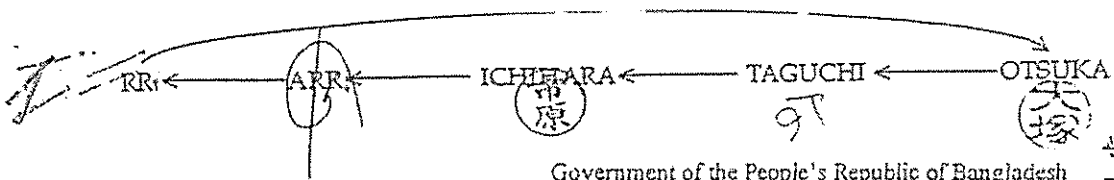
Percentage of Tubewell Contamination:

- Below 20%
- 20 - 40
- >40 - 60
- >60 - 80
- Above 80%



Figure: Stakeholder Relationships for the Sustainable Arsenic Mitigation Project under Integrated Local Government Systems





Government of the People's Republic of Bangladesh
Cabinet Division
District Administration-4 Branch

県以下各級委員会
及び協議会等。これら
の委員等による調査
報告書は、M.A.N.の
所管する。

Dated: 30/11/2000 午 11 時

CD/DA-4/2(104/99-2000/193

OFFICE ORDER

Due to the arsenic contamination in the ground water of various areas in Bangladesh, it has been decided to form the following Arsenic Mitigation Committees at Ward, Union, Upazila and District level to survey the tube wells, patient identification and supply of arsenic free water:

1) Ward Arsenic Mitigation Committee:

- | | | | |
|-----|--|---|----------|
| (1) | Female Ward Member | - | Adviser |
| (2) | Ward Member | - | Chairman |
| (3) | Health Worker/Family Welfare Assistant - 1 | - | Member |
| (4) | Block Supervisor - 1 | - | Member |
| (5) | Ansar/VDP Worker - 1 | - | Member |
| (6) | Imam, Masjid - 1 | - | Member |
| (7) | Representative, Freedom Fighters - 1 | - | Member |
| (8) | Representative, Teachers - 1 | - | Member |

A qualified member from among the above will be selected as Member-Secretary. If necessary, 2 local respectable members of the society may be co-opted in the committee. 3-5 above will be nominated by the concerned authorities while 6, 7 & 8 will be nominated by the Union Parishad.

Scope of the Committee

- (a) Form Survey Committee for surveying the arsenic affected tube wells and to identify arsenic affected patients;
- (b) Prepare training schedule of the survey committee with timeframe;
- (c) Implement the survey of the tube wells and to identify patients after the training;
- (d) Communication campaign on the arsenic;
- (e) Encourage formation of Rural Water Supply Committee in each village to ensure supply of arsenic free safe water in the villages;
- (f) Others.

2) Union Arsenic Mitigation Committee:

- | | | | |
|-----|---|---|----------|
| (1) | Chairman of the Union Parishad | - | Chairman |
| (2) | Female Union Parishad members of reserved seats | - | Members |
| (3) | All members of Union Parishad | - | Members |
| (4) | Assistant Health Inspector | - | Member |
| (5) | Family Planning Inspector | - | Member |
| (6) | Representative, Teachers - 1 | - | Member |
| (7) | Leader, Ansar | - | Member |
| (8) | Representative, Freedom Fighters | - | Member |
| (9) | Secretary, Union Parishad | - | Member |

If necessary, maximum two local respectable members of the society may be co-opted in the committee. No. 6 above will be nominated the Upazila Education Officer while No.8 will be nominated the Freedom Fighters Command Council.

Scope of the Committee

- (a) Form and supervise Arsenic Mitigation Committee in each Ward;
- (b) Chalk out survey programme, coordinate and ensure implementation of the survey;

- (c) All out support to the Ward Committee in mitigating the arsenic;
- (d) Maintain liaison with the Upazila Arsenic Mitigation Committee;
- (e) Other related activities.

3) Upazila Arsenic Mitigation Committee:

(1)	Upazila Nirbahi Officer	-	Chairman ✓
(2)	Chairmen of all Union Parishads	-	Members
(3)	Upazila Health & Family Planning Officer	-	Member
(4)	Upazila Agriculture Officer	-	Member
(5)	Upazila Statistics Officer	-	Member
(6)	Upazila Education Officer	-	Member
(7)	Upazila Social Welfare Officer	-	Member
(8)	Upazila Ansar & VDP Officer	-	Member
(9)	Representative, Teachers (1 Female & 1 Male)	-	Members
(10)	Representative, Freedom Fighters - 1	-	Member
(11)	Sub-Assistant Engineer, DPHE	-	Member-Secretary ✓

If necessary, the committee will be able to co-opt maximum 2 respectable members of the society (1 female and 1 male). No.9 will be nominated by the Upazila Nirbahi Officer while No.10 will be nominated by the Freedom Fighters Command Council.

Scope of the Committee:

- (a) Ensure formation of Arsenic Mitigation Committee in each Union and Ward;
- (b) All out support to Union Arsenic Mitigation Committees in mitigating arsenic;
- (c) Coordinate and supervise the activities of the arsenic mitigation activities in the Upazila;
- (d) Maintain liaison with District Arsenic Mitigation Committee;
- (e) Take up and implement any other arsenic related activities.

4) District Arsenic Mitigation Committee:

(1)	Deputy Commissioner	-	Chairman ✓
(2)	Superintendent of Police	-	Member
(3)	Civil Surgeon	-	Member
(4)	Deputy Director, Agriculture Extension Directorate	-	Member
(5)	Executive Engineer, LGED	-	Member
(6)	Deputy Director, Social Welfare Department	-	Member
(7)	District Information Officer	-	Member
(8)	District Statistics Officer	-	Member
(9)	District Education Officer	-	Member
(10)	District Ansar & VDP Officer	-	Member
(11)	All Chairmen of Municipalities	-	Members
(12)	All UNOs of the district	-	Member
(13)	District Women Affairs Officer	-	Member
(14)	Representative, Teachers - 2 (1 female & 1 male)	-	Members
(15)	Representative, Freedom Fighters - 1	-	Member
(16)	Executive Engineer, DPHE	-	Member-Secretary ✓

If necessary, the committee will be able to co-opt maximum 2 respectable members of the society (1 female and 1 male). No.14 will be nominated by the District Education Officer while No.15 will be nominated by the Freedom Fighters Command Council.

Scope of the Committee:

- (a) Ensure formation of Arsenic Mitigation Committee in each Upazila;
- (b) Coordinate the arsenic related activities of the District and guide them;
- (c) Coordinate and supervise the arsenic related activities in the district;
- (d) Take up and implement any other arsenic related activities.

The above committees will hold meetings as and when necessary.

Each committee will follow the guidelines of Arsenic Mitigation Water Supply Project in carrying out the survey.

This order will come into effect immediately.

Sd/-
(Muhammad Abdus Sattar)
Joint Secretary

Distribution:

- 1) Secretary/Secretary-in-Charge, Ministry/Department
- 2) All Divisional Commissioner
- 3) All Upazila Nirbahi Officers

Information:

- 1) Secretary, Local Government Division, Bangladesh Secretariat, Dhaka.

この様な Committee は 2 名の委員、機能 (24 名) とは 3 名、もしくは 3 名程度
 機能 24 名は、役員を 2 名と 22 名とに活用可能と見られる。
 したがって、完全に休止している Committee を 2 名と 22 名とに役員には
 困難な状況では DPHEN の 1 名 (2 名) を 2 名 (1 名) Union Unions
 2 名 (1 名) DPHEN 2 名 (1 名) は 2 名 (1 名) ~~DPHEN 2 名 (1 名)~~
 主な upi? ~~AAAN~~ 2 名 (1 名) ~~DPHEN 2 名 (1 名)~~
 本局にて 2 名 (1 名) 2 名 (1 名) 2 名 (1 名) 2 名 (1 名) 2 名 (1 名)
 依頼する。 District Union 2 名 (1 名) 一般の 2 名 (1 名) 2 名 (1 名)
 11/20/01 2 名 (1 名) 2 名 (1 名) 2 名 (1 名) 2 名 (1 名) 2 名 (1 名)

Project Planning Workshop

on

Sustainable Arsenic Mitigation under Local Government System

Proceedings and Findings



Japan International Cooperation Agency (JICA)

CONTENT

1. Preface and Purpose of the Workshop	00
2. List of Participants	00
3. Inaugural Session	00
4. Previous JICA/AAN Project	00
5. Brain Storming Session	00
a. Problem Analysis	
b. Objective Analysis	
6. Project Planning Session	00
7. Project Design Matrix (PDM)	00

Proceedings and Findings of Project Planning Workshop
on Sustainable Arsenic Mitigation under Local Government System

March 2005

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For further information:

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This report was produced under overall supervision of Ryuji Ogata.
Content Management and Edited by Md. Ashadul Latif
Review was carried out by Shina Okaichi.

ISBN 00 000 0000

Project Planning Workshop for Sustainable Arsenic Mitigation in Jessore District

Date : 9 March 2005, Thursday
Time : 9:30 am to 4:30 pm (Registration begins at 9:00 am)
Place : Conference Room Hotel Hasan International, Jessore
Chairperson : Shafiqul Islam Deputy Secretary (Water Supply), LGD
Ministry of LGRD & Co-operatives

List of Participants

1. Mr. Md. Safiqul Islam	<i>Deputy Secretary, LGD</i>
2. Mr. Md. Abdul Wazed	<i>Deputy Commissioner, Jessore</i>
3. Dr. Abul Bashar Md. Khoshru	<i>Civil Surgeon, Jessore</i>
4. Mr. Md. Saifur Rahman	<i>Executive Engineer of Jessore DPHE</i>
5. Dr. Md. Mosharraf Hossain	<i>Deputy Civil Surgeon, Jessore</i>
6. Dr. Md. A Zaman	<i>Senior HEO, Jessore</i>
7. Mr. Md. Rafiqul Islam	<i>ADLG, Jessore</i>
8. Mr. Md. Adul Hossain	<i>SDE, DPHE, Jessore</i>
9. Mr. Md. Laisur Rahman	<i>UNO, Sharsba</i>
10. Mr. Asok Kumar Debnath	<i>UNO, Chougachha</i>
11. Dr. Md. Salah Uddin Khan	<i>UHE& FPO, Chougachha</i>
12. Mr. Md. Abdul Aziz	<i>Sub-Assistant Engineer, Sharsba</i>
13. Mr. Md. Golam Rabbanni	<i>Sub-Assistant Engineer, Chougachha</i>
14. Mr. Md. Abdur Razzak Mollah	<i>Chairman, Bagachma Union, Sharsba</i>
15. Mr. Md. Mofizul Islam Chotto	<i>Chairman, Goga Union, Sharsba</i>
16. Mr. Md. Abdur Rahman	<i>Chairman, Jogadishpur Union, Chougachha</i>
17. Mr. Md. Shohidul	<i>Executive Engineer, PWD, Jessore</i>
18. Mr. Md. Abdur Razzak	<i>Chairman, Village AMC, Manua, Chougachha</i>
19. Mr. Md. Yamanur Rahman	<i>UP Member, Kayba Ward No. 9, Sharsba</i>
20. Mr. Md. Nizam Uddin	<i>UP Member, Kayba Ward No.7, Sharsba</i>
21. Mr. Ashok Kumar Ghosh	<i>UP Member, Goga Ward No. 4, Sharsba</i>
22. Mrs. Zahanara	<i>Chairman, Dhadehali Khaldarpara Users Committee And UP Member, Kayba Ward No. 1,2,3 (fe), Sharsba</i>
23. Mr. Md. Shahajahan Kabir	<i>Chairman, Goga Karigorpara Users Committee</i>
24. Mr. Md. Sher Ali Biswas	<i>Chairman, Sarita West Para Users Committee</i>
25. Mrs. Amena Khatun	<i>UP Member, Goga Ward No. 1,2,3 (fe), Sharsba</i>
26. Mrs. Jahanara Khatun	<i>UP Member, Bagachma Ward No. 7,8,9 (fe), Sharsba</i>
27. Mr. Nokiaki Nagatomo	<i>JICA Primary Evaluation Survey Mission</i>
28. Mr. Takuya Sugawara	<i>JICA Primary Evaluation Survey Mission</i>
29. Mr. Kazuyuki Kawahara	<i>JICA Primary Evaluation Survey Mission</i>
30. Ms. Shina Okaichi	<i>JICA Primary Evaluation Survey Mission</i>
31. Ms. Asako Takahashi	<i>JICA Primary Evaluation Survey Mission</i>
32. Mr. Naoyuki Yonekawa	<i>JICA Expert</i>
33. Mr. Ryuji Ogata	<i>JICA Expert</i>
34. Mr. Julfikar Ali	<i>Deputy Director, JICA</i>
35. Mr. Tarun Kanti Hore	<i>Asia Arsenic Network</i>
36. Mr. Md. Ashadul Latif	<i>Asia Arsenic Network</i>
37. Mr. Md. Kamruzzaman	<i>Asia Arsenic Network</i>

Moderator : Shina Okaichi

Sub Moderator : Ryuji Ogata, Julfikar Ali and Tarun Kanti Hore

Assistance : Md. Kamruzzaman

Inaugural Session

Mr. Nokiaki Nagatomo

JICA Primary Evaluation Survey Mission

Mr. Shafiqul Islam, Respected Chairperson and Deputy Secretary of the Local Government Division, Mr. Mohammad Abdul Wazed, Deputy Commissioner of Jessore district, Dr. Abdul Basher Mohammed Khashru, Civil Surgeon of Jessore, Mr. Saifur Rahman, Executive Engineer of DPHE, Distinguished participants, ladies and gentlemen, Assalamu Alaikum and good morning.

On behalf of Japan International Cooperation Agency, I warmly welcome you to this project preparation workshop of the “Sustainable Mitigation of Arsenic Contamination under Integrated Local Government System.”

As we all know, arsenic contamination of groundwater has become a serious threat to the public health of Bangladesh. About 30 million people of 270 Upazila are exposed to arsenic contaminated water.

Like many other development partners, the government of Japan has also come forward to assist Bangladesh to provide safe water to the people of the arsenic affected areas.

JICA conducted a groundwater development study in Jessore and last year we completed an arsenic mitigation project in Sharsha upazila of Jessore district. And with these experiences JICA has decided to implement this Sustainable Arsenic Mitigation under Integrated Local Government System Project in two upazilas of Jessore district.

The main objective of the Project is to make arsenic mitigation activities sustainable with community's initiatives supported by LGIs, administration and departments like DGHS and DPHE. Our Preparatory Study Mission has received very positive response and whole-hearted cooperation from LGD, DC office, Civil Surgeon Office, DPHE offices and all other offices concerned. We would like to do make this project a model collaboration project in arsenic sector.

Today, we hold this workshop in Jessore to listen to the field level officials who are directly facing the challenge of mitigating arsenic contamination. I would like to request all the participants to express your views freely and frankly in the workshop. We must take advantage of this opportunity to identify the problems in arsenic mitigation activities and suggest the best possible solutions to the problems.

Finally, I would like to thank the Deputy Secretary, Deputy Commissioner, Civil Surgeon, Executive Engineers of DPHE for their kind cooperation to the JICA Mission and attending this workshop despite their busy schedule.

And thanks to the distinguished guest and all the participants. I wish a grand success of the workshop.

Dhannabad.



Md. Saifur Rahman
Executive Engineer, DPHE, Jessore

Ladies and Gentlemen: Assalamoalikum.

After the detection of arsenic in Bangladesh, about a decade has been passed and till date there is no specific progress about the mitigation of this problem. We don't have any clear conceptions about the contamination of arsenic and its characteristics. However, a primary concept has been found in this concern.

We know that of the total water resource of the world, human is able to utilize only one percent of it.



Mainly water has two sources, surface and underground. But the situation of surface water is very miserable. Pollution of river is a world wide problem today and it is severe in Asian countries. Especially the situation of Bangladesh is threatening.

Usually the people of the north and south western region were used to using water from the river Padma. However, after building the Farakka barrage by the government of India, the desertification has been started in this country. Most of the rivers are drying up gradually. The river *Bhairab*, passing through the Jessore town, has become nothing but a big size sewerage. For these reasons we were depend upon ground water. But due to large volume of usage, the water level is going down suddenly. This scarcity of water has become a challenge for us.

Bangladesh government is determined to mitigate the arsenic problem with its limited resources. We have installed so far 2000 deep tubewells, 100 ringwells and 30 PSFs in Jessore. JICA has been conducting numerous activities in Bangladesh. They have conducted a water quality study and now they are going to implement a large-scale project. We are hopeful to this project. Personally I would like JICA implementing projects comprised of both hardware and software service because the people of Bangladesh will be benefited directly more through hardware activities. I wish all success of the project. Thank you.

Dr. Abul Bashar Md. Khosru
Civil Surgeon, Jessore

Ladies and Gentlemen, Good Morning.

Today we are here for the project-planning workshop of JICA. Arsenic is a burning problem in Bangladesh and we are well known that JICA is conducting arsenic mitigation activities in Sharsha upazila



of Jessore. And now they are coming forward with another project. By this time, we already have discussed with them about this project.

For the last 20-25 years it has been said that Tubewell water is safe for the use of all purposes. But now we are saying that tubewell water is not safe for drinking. So the concept of safe water has been changed. Arsenic is causing severe health hazards to the people. The most important thing is identifying the patients and providing treatment to them. In this concern we have already asked the Japanese organization to take the mater into account. I think now it is time to proceed in the direction of patient management and alternative safe water options. And I think only this effort can bring success to the project. I would like to thank JICA for coming forward with such project and also ensure full cooperation from our part. Thank you.

Md. Abdul Wazed

Deputy Commissioner, Jessore.

Ladies and Gentlemen, Assalamo Alaikum.

Water is the another name of life. Bangladesh is as poor as a densely populated country. Plenty of water in rainy season and scarcity of water in dry season is a common scenario. Our rivers are drying up rapidly. At past, we were used to of using river water. People had died from Cholera and Diarrhoea at that time. Then UNICEF came with the idea of installing tubewells. A number of tubewells were installed and about 95% of success was gained. But now we are facing another problem from these tubewells, and that is arsenic. At the beginning the affected people could not understand the cause of arsenic and they became superstitious. But now people are well aware of it. However, problem is that arsenic contamination is a continuous process and arsenicosis patients require a long-term diagnosis and treatment.

I would like to thank JICA that after the Sharsha project they are onward of a new project and through which they want to work in collaboration with Department of Health and DPHE. I appreciate this initiative. This project will be a study of sustainable arsenic mitigation at government level. I think during today's workshop we will be able to share our ideas through discussion and counseling and will receive a direction to carry out the project successfully. I know that Japanese people usually takes extensive preparation for every work to be done. In fact this workshop is a continuation of preparation. Since there are some opportunities for discussion, I would like to ask JICA to consider the matter of more hardware support and extension of activity area. Thank you.



Md. Shafuqul Islam

Deputy Secretary, Local Government Division

Ladies and Gentlemen: Assalamo Alaikum.

I think there is nothing to be worried about the size of this workshop. Hope, we will gather many important things about arsenic as a national problem from this small-scale workshop. In Bangladesh among the 472 upazilas, 272 is arsenic contaminated. Bangladesh government has made a water management and sanitation strategy in 1992 and in continuation of this, another policy for arsenic mitigation has also been made. And recently a pro-poor strategy has been made to provide water and sanitation to the hard core poor. A sectoral development framework is also planned by this time. Hope, through these activities we will able to conduct country wide arsenic mitigation program within a short time.

Many donor agencies have took interest in these activities because Bangladesh at the risk of arsenic and it is alarming that arsenic can bring a massive disaster which will be resulted in a miserable human tragedy. To present this occurrence, along with government, local administration and community will have to take initiatives.

We are very hopeful about the upcoming project, which will be a continuation of the previous successful JICA/AAN project.

First of all, we have to find out the cause of the problem. Mainly this is a cause of plenty of use of ground water. You know, our water level is decreasing every year. If water level goes down in this way, the deep tubewell will also not work in future. So we have to consider alternative measures. About 90% of our total water usage is in agriculture purposes. We can try to change the pattern of our agriculture. Training of the farmer on modern technology of cultivation is also required.

I would like to thank JICA for this project. But we also should come forward to mitigate the problem by ourselves. We have to work with them sharing their experiences and technologies. We can take initiatives at village level. Since, the main purpose of this project is sustainable arsenic mitigation through local government, I request you all to provide necessary assistance to this project. Japan is our trusted friend. So it is of our essence to work jointly with the Japanese people as well as JICA.

I am thanking you all on behalf of my ministry, Thank you.

