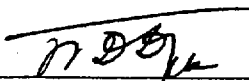


2. S/W

SCOPE OF WORK  
FOR  
THE STUDY  
ON  
IMPROVEMENT PLAN OF LIVESTOCK FARMING SYSTEM IN RURAL AREA IN  
MONGOLIA

AGREED UPON BETWEEN  
MINISTRY OF FOOD AND AGRICULTURE  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

ULAANBAATAR, OCTOBER 3, 2002

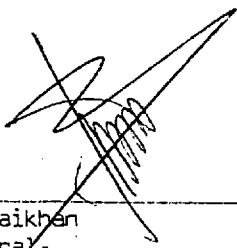


Mr. P. Damdindorj  
State secretary,  
Ministry of Food and Agriculture



Mr. Kiichi Narita  
Leader,  
Preparatory Study Team,  
Japan International Cooperation Agency

Witnessed by



Mr. KH. Amarsaikhen  
Director General,  
Economic Cooperation, Management and  
Coordination Department  
Ministry of Finance and Economy

## I INTRODUCTION

In response to a request from the Government of Mongolia (hereinafter referred to as the "GOM"), the Government of Japan (hereinafter referred to as the "GOJ") has decided to conduct the Study on Improvement Plan of Livestock Farming System in Rural Area in Mongolia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the GOJ, will undertake the Study in close cooperation with the authorities concerned of the GOM.

The present document sets forth the Scope of Work for the Study.

## II OBJECTIVE OF THE STUDY

The objectives of the Study are:

1. To formulate a plan of actions to utilize pastureland and to manage wells for mitigating overgrazing situation, and thus contribute to the alleviation of damages caused by dzud and to the stabilization of livestock farming.
2. To carry out technology transfer to Mongolia counterparts through on-the-job training in the course of the Study.

## III STUDY AREA

The Study will cover the priority area(s) in aimags of Gobi and Steppe zone.

## IV SCOPE OF THE STUDY

In order to achieve the above objectives, the Study shall consist of three (3) phases and shall cover the following items:

### 1. Phase I

#### <Main issue>

- Collection and analysis of basic data
- Formulation of the plan for pasture utilization system and of the plan for construction, rehabilitation, and maintenance of wells in line with the plan for pasture utilization system.

#### <Study item>

### 1) Diagnostic Analysis

1)-1 to select the three (3) aimags as survey area,

1)-2 to review of livestock farming development policy, plan, and project,

1)-3 to carry out field survey and collecting data such as natural condition, social condition, pastoral production, distribution condition, economic condition

of herders, activities of herders, and others,

1)-4 to recognize present surrounding condition of livestock farming,

2) Formulation of the plan for pastureland utilization system

2)-1 to analyze the present condition of pasturing capacity and overgrazing.

2)-2 to collect the information of pasture land management.

2)-3 to analyze the appropriate pasture utilization system and control method for appropriate number of livestock,

3) Formulation of the plan for construction, rehabilitation, and maintenance of wells in line with the plan for pasture utilization system,

3)-1 to analyze the present condition of wells and its utilization by herders,

3)-2 to collect the information of hydrogeological condition,

3)-3 to analyze the operation and maintenance system of wells,

3)-4 to propose the areas for well construction and rehabilitation,

2. Phase II

<Main issue>

- Formulation of the detailed plan for sustainable livestock farming management system (include pasture utilization system)
- Formulation of the detailed plan for construction, rehabilitation, and maintenance of wells in line with the plan for pasture utilization system

<Study item>

2-1 to select the detailed survey area (equivalently one (1) aimag),

2-2 to plan and implement exploration (geophysical and hydrogeological surveys) for wells, and thus identify the types and locations toward their construction,

2-3 to estimate construction and rehabilitation cost,

2-4 to prioritize the wells for their construction and rehabilitation,

2-5 to select areas for the experimental study based on criteria set during the study,

2-6 to clarify the components of experimental study.

3. Phase III

<Main issue>

- implementation of the experimental study with following purpose;

- a. to verify the validity of the plan for pastureland utilization system and for operation and maintenance of wells.
- b. to enhance skills of Mongolian counterpart personnel and

others for the effective pastureland utilization and for operation and maintenance of wells.

c. to strengthen the administrative systems of the organizations concerned.

<Study item>

3-1 to implement the experimental study for the components clarified in Phase II,

3-2 to monitor and evaluate the process of activities for the experimental study,

3-3 to formulate the final report.

V STUDY SCHEDULE

The Study will be carried out in accordance with the attached tentative schedule (ANNEX). The schedule is to be modified when both sides agree upon any necessity that will arise during the course of the Study.

VI REPORTS

JICA shall prepare and submit the following reports in English to the GOM:

1 Inception Report

Twenty (20) copies in English at the commencement of the Phase I.

2 Interim Report 1

Twenty (20) copies in English at the commencement of the Phase II.

3 Progress Report 1

Twenty (20) copies in English at the end of the Phase II.

4 Interim Report 2

Twenty (20) copies in English at the commencement of the Phase III.

5 Progress Report 2

Twenty (20) copies in English during the course of the Third phase of work.

6 Draft Final Report

Twenty (20) copies in English after the end of third phase of work in Mongolia. The GOM shall provide JICA with its comments on the Draft Final Report within one (1) month of receipt of the Draft Final Report.

7 Final Report

Fifty (50) copies in English within two (2) months of receipt of GOM comments on the Draft Final Report.

VII UNDERTAKINGS OF THE GOVERNMENT OF MONGOLIA

1 To facilitate smooth conduct of the study, the GOM shall take necessary measures:

*K.H.*

*Ja*  
*P.D.*

- 1-1 to secure the safety of the Japanese study team.
  - 1-2 to permit the members of the Japanese study team to enter, leave and sojourn in Mongolia for the duration of their assignment therein, and exempt them from foreign registration requirements and consular fees.
  - 1-3 exempt the members of the Japanese study team from taxes, duties, fees and any other charges on equipment, machinery and other materials brought into Mongolia for the conduct of the study
  - 1-4 to exempt the members of the Japanese study team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese study team for their services in connection with the implementation of the Study.
  - 1-5 to provide necessary facilities to the Japanese study team for the remittance as well as utilization of the funds introduced into Mongolia from Japan in connection with implementation of the Study.
  - 1-6 to secure permission for entry into private properties or restricted areas for the implementation of the Study.
  - 1-7 to secure permission for the Japanese study team to take all data and documents (including photographs and maps) related to the Study out of Mongolia to Japan.
  - 1-8 to provide medical services as needed. Its expenses will be chargeable on the members of the Japanese study team.
  - 1-9 to provide necessary facilities to the Japanese study team for unrestricted re-export of equipment and machinery brought into Mongolia for the conduct of the Study.
  - 1-10 to secure permission to use walkie-talkies and other wireless telecommunications for execution of the field study.
  - 1-11 to provide services of liaison staff, local guides, laborers, drivers, fuel, rent-a-car, etc.
2. The Government of Mongolia shall bear claims, if any arises, against the members of the Japanese study team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese study team.
3. The Strategic Planning and Policy Department of the Ministry of Food and Agriculture (hereinafter referred to as "SPPD") shall act as counterpart agency to the Japanese study team and also as coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. SPPD shall, at its own expense, provide the Japanese study team with the following, in cooperation with other organizations concerned:

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- 4-1 available data and information related to the Study,
- 4-2 counterpart personnel,
- 4-3 suitable office space with necessary equipment and furniture in Ulaanbaatar and survey sites, and
- 4-4 credentials or identification cards.

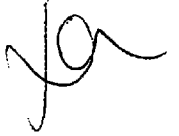
#### VIII UNDERTAKINGS OF JICA

For the implementation of the Study, JICA shall take the following measures:

- 1 to dispatch, at its own expense, study team to Mongolia.
- 2 to pursue technology transfer to Mongolian counterparts in the course of the Study.

#### IX CONSULTATION

JICA and SPPD shall consult with each other in respect of any matter that may arise from or in connection with the Study.



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# TENTATIVE SCHEDULE

		ANNEX																				
MONTH		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
PHASE		← Phase I →				← Phase II →						← Phase III →										
WORK IN MONGOLIA		▨		▨				▨					▨			▨			◎			
WORK IN JAPAN		□	□			□					□			□			□					
REPORT		△ Ic/R	△ Ii/R(2)		△ P/R(1)					△ Ii/R(2)			△ P/R(2)			△ Df/R		△ F/				

(Remarks)

Ic/R : Inception Report	P/R(2) : Progress Report 2
Ii/R(1) : Interim Report 1	Df/R : Draft Final Report
Ii/R(2) : Interim Report 2	F/R : Final Report
P/R(1) : Progress Report 1	◎ : Comments on DF/R by the Mongolian side

*K.H.*

*[Signature]*

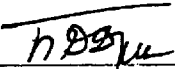
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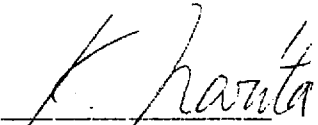
3. M/M

MINUTES OF MEETING  
FOR  
THE STUDY  
ON  
IMPROVEMENT PLAN OF LIVESTOCK FARMING SYSTEM IN RURAL AREA  
IN  
MONGOLIA

AGREED UPON BETWEEN  
MINISTRY OF FOOD AND AGRICULTURE  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

ULAANBAATAR, OCTOBER 3, 2002

  
\_\_\_\_\_  
Mr. P. Damdin Dorj  
State secretary,  
Ministry of Food and Agriculture

  
\_\_\_\_\_  
Mr. Kiichi Narita  
Leader,  
Preparatory Study Team,  
Japan International Cooperation Agency



## I. INTRODUCTION

In response to a request from the Government of Mongolia (hereinafter referred to as "GOM"), the Preparatory Study Team (hereinafter referred to as "the Team") headed by Mr. Kiichi NARITA was sent to Mongolia by the Japan International Cooperation Agency from 23 September to 11 October, 2002.

The team held a series of discussions in relation to the Scope of the Study on Improvement Plan of Livestock Farming System in Rural Area in Mongolia (hereinafter referred to as "the Study") with representatives of the Ministry of Food and Agriculture (hereinafter referred as "MOFA") and other relevant organizations. The list of participants in the series of meetings is attached as ANNEX 1. The following were agreed upon by both Mongolia and Japanese sides in relation to the Study.

## II. RESULTS OF DISCUSSIONS

### 1. Title of the Study

Both sides agreed that the title of the Study should be changed from "The Study on Improvement of Water Supply Source in Rural Areas" to "The Study on Improvement Plan of Livestock Farming System in Rural Area"

### 2. Study Area

Both sides confirmed that the study area covers three (3) Aimags in Phase I, one (1) Aimag in Phase II, and a few soums in Phase III.

MOFA will inform JICA of their priority areas (3 Aimags) by the end of February, 2003.

### 3. Study Schedule


MOFA requested to start the Study as early as possible.

MOFA also requested to implement Phase III study as early as possible.

### 4. Steering Committee

For the smooth and effective implementation of the Study, both sides agreed upon the need for establishment of a steering committee chaired by MOFA in the course of the Study. Expected participants of the steering committee are as follows:

- (1) Ministry of Food and Agriculture
- (2) Ministry of Finance and Economy
- (3) Other relevant research institutes for animal husbandry and

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hydrogeology

- (4) Embassy of Japan in Mongolia
- (5) JICA Mongolia Office
- (6) JICA Study Team

5. Counterpart organization and personnel

- (1) Both sides confirmed that the Strategic Planning and Policy Department is responsible for coordinating and implementing the Study with the assistance by the Study team and JICA.
- (2) MOFA promise to assign the necessary number of counterparts for the Study Team.

6. Counterpart Training in Japan

MOFA requested the training of counterpart(s) on specific relevant subjects in Japan for the efficient implementation of the Study. The team promised to convey it to the JICA headquarters in Tokyo.

7. Reports

- (1) Both sides confirmed that the final report of the Study would be opened to the public.
- (2) MOFA requested that final report would be made both in English and Mongolian. The team promised to convey it to the JICA headquarters in Tokyo.

8. Equipment and Facilities

MOFA promised to provide the Study team with a suitable office space within the buildings of MOFA and Aimag centers and to make its best effort to provide desks, chairs and telephones in the office.

MOFA requested JICA to support following equipments and materials for the Study. The team promised to convey it to the JICA headquarters in Tokyo.

- Vehicle and relevant equipments
- Photocopy machine
- Personal computers and printers
- Other necessary equipments for the Study

9. Maps

MOFA requested to make maps of pasture capacity, grazing and location of water wells for three (3) Aimags which will be covered in Phase I

Study.

10. Others

Both side confirmed that the detailed contents and method of the study (i.e. how to implement geophysical and hydrogeological surveys and so on) will be explained by Inception Report.

K. A. P. D.

ANNEX

LIST OF PARTICIPANTS

Mongolian Side

Ministry of Food and Agriculture

Mr. P. Damdindorj	State Secretary
Mr. Davaadorj Gochoo	Director, Strategic Planning and Policy Department
Mr. Damdindorj Batmunkh	Senior Officer, Policy Implementation and Coordination Department
Ms. T. Erdenejargal	Asia desk officer, External Relations and Cooperation Division

Japanese Side

Preparatory Study Team

Mr. Kiichi NARITA	Leader, Herder's organization
Mr. Yusuke TADA	Member, Livestock farming / Pasture land
Mr. Akira KAMATA	Member, Ground water / Well management
Mr. Hitoshi FUJIE	Member, Project planning / Preliminary evaluation
Ms. Makiko KATO	Member, Interpreter

JICA Expert

Mr. Yukio SUZUKI	JICA Expert, Ministry of Food and Agriculture
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JICA Mongolia Office

Mr. Akira SHIMIZU	Assistant Resident Representative, JICA Mongolia Office
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A. N. P.D.

## 資料リスト (収集資料)

地域	アジア	調査団又は専門家氏名		調査の種類又は指導科目		作成部課		
国名	モンゴル国	配属機関名		現地調査期間又は派遣期間		担当者氏名		
番号	資料の名称		版型	ページ数	オリジナル コピーの別	部数	収集先名称または発行 機関	寄贈・購入 (価格)の別
	地下水・井戸管理							
III-1	Technical Report on the Distribution of Production Wells for Livestock and the Grazing Capacity (Dundgobi, Mongolia)		A4	52	コピー	1	GEOMASTER CO., LTD	寄贈
III-2	Technical Report on the Distribution of Production Wells for Livestock and the Grazing Capacity (Dornogobi and Gobisumber, Mongolia)		A4	41	コピー	1	GEOMASTER CO., LTD	寄贈
III-3	Technical Report on the Distribution of Livestock Supply Wells and the Pastureland Capacity in Omnogobi Province		A4	53	コピー	1	US OYU CO., LTD	寄贈
III-4	Report on Livestock Water Supply and Pasture Circumstance of Sukhbaatar Aimag		A4	92	コピー	1	BEMM CO., LTD.	寄贈
III-5	Map of Area for Water Supply Improvement and Pasture Management in 7 Gobi Aimags, Attachment		A4, A0	-	オリジナル	1	BEMM CO., LTD.	寄贈
III-6	Technology Renovation of Livestock Watering Wells		A4	76	オリジナル	1	Mongolian Water Works Support Center	寄贈
III-7	家畜用水井戸技術の改善 (モンゴル語)		A4	31	オリジナル	1	Mongolian Water Works Support Center	寄贈
III-8	Water Engineering Exit Report		A4	16	コピー	1	Agriculture Sector Development Project	寄贈
III-9	Participatory Evaluation of National Water Supply, Sanitation and Hygiene Education Program for the 21st Century in Mongolia		A4	92	コピー	1	UNDP	寄贈

番号	資料の名称	版型	ページ数	オリジナル コピーの別	部数	収集先名称または発行 機関	寄贈・購入 (価格)の別
III-10	The Location of the Water Points of Dornogobi Aimag	A1	1	オリジナル	1	GEOMASTER CO., LTD	寄贈
III-11	Distribution of Production Well (Dundgobi Aimag)	A1	1	オリジナル	1	GEOMASTER CO., LTD	寄贈
III-12	Total Water Point Distribution Map (Sukhbaatar Aimag)	A1	1	オリジナル	1	BEMM CO., LTD.	寄贈
III-13	さく井地質柱状図、構造図 (モンゴル語)	A1	1	オリジナル	1	ドルノゴビ井戸会社	寄贈
III-14	電気探査比抵抗断面図 (モンゴル語)	A1	1	オリジナル	1	ドルノゴビ井戸会社	寄贈
III-15	Map of Area for Water Supply Improvement and Pasture Management in 7 Gobi Aimag, Water and Pastureland	A0x2	1	オリジナル	1	BEMM CO., LTD.	寄贈
III-16	Map of Underground Water and Pastureland Distribution	A0	1	オリジナル	1	BEMM CO., LTD.	寄贈
III-17	The Location of the Water Points of Dornogobi Aimag with Pastureland Classification	A1	1	オリジナル	1	GEOMASTER CO., LTD	寄贈
III-18	The Location of the Water Points of Omnogobi Aimag with Pastureland Classification	A1	1	オリジナル	1	GEOMASTER CO., LTD	寄贈
III-19	The Location of the Water Points of Dundgobi Aimag with Pastureland Classification	A1	1	オリジナル	1	GEOMASTER CO., LTD	寄贈
III-20	Well Distribution Map Confirmed by GPS Survey in 2002 (Sukhbaatar Aimag)	A1	1	オリジナル	1	BEMM CO., LTD.	寄贈
III-21	Geological Map of Mongolia (1 : 3,200,000)	A2	1	オリジナル	1	地質情報センター	購入
III-22	Geological Map of Mongolia (1 : 1,000,000)	A1	1	オリジナル	1	地質情報センター	購入
III-23	1/20万地質図インデックス (モンゴル語)	A2	1	オリジナル	1	地質情報センター	購入
III-24	Administrative Unit Map (1:2,500,000)	A1	1	オリジナル	1	地質情報センター	購入
III-25	Administrative Map of Mongolia (1:6,000,000)	A3	1	オリジナル	1	測量地形局	購入
III-26	Physical Map of Mongolia (1:6,000,000)	A3	1	オリジナル	1	測量地形局	購入
III-27	1/50万地形図 ゴビ地域 (25葉)	A2	25	オリジナル	1	測量地形局	購入
III-28	モンゴルの地表水 (モンゴル語)	B5	362	オリジナル	1	気象水文研究所	購入
III-29	1/20万地質図作成結果レポートリスト (モンゴル語)	A4	1	コピー	1	地質情報センター	購入
III-30	気象観測所位置図	A4	2	オリジナル	1	気象水文研究所	寄贈
III-31	ゴビ7県気象観測所リスト	A4	2	コピー	1	気象水文研究所	寄贈

番号	資料の名称	版型	ページ数	オリジナル コピーの別	部数	収集先名称または発行 機関	寄贈・購入 (価格)の別
Ⅲ- 32	井戸修復工事についての農牧産業大臣・大蔵大臣共同令 (和訳)	A4		コピー	1	食料農牧省	寄贈
Ⅲ- 33	水事業専門諸機関の業務格付け, レベル判定規則 (和 訳)	A4		コピー	1	食料農牧省	寄贈
Ⅲ- 34	水質、成分、汚染評価手引き (暫定) (和訳)	A4		コピー	1	食料農牧省	寄贈
Ⅲ- 35	放牧地における井戸の高性能揚水ポンプのモデル (和 訳)	A4	10	コピー	1	ジオエコロジー研究所	寄贈
Ⅲ- 36	地方給水整備技術現状、今後の目標方針 (和訳)	A4	7	コピー	1	農業省	寄贈
Ⅲ- 37	水質改良が必要とされるソムの調査 (和訳)	A4	8	コピー	1	社会保健所・モンゴル 国技術大学	寄贈
Ⅲ- 38	モンゴル国政府の決議代43号「国家用水プログラム」 (和訳)	A4	14	コピー	1	食料農牧省	寄贈
Ⅲ- 39	水の法律に関する追加法案(和訳)	A4	2	コピー	1	食料農牧省	寄贈
Ⅲ- 40	Law on Water of Mongolia (Official Translation)	A4	10	コピー	1	食料農牧省	寄贈
Ⅲ- 41	List of Cooperatives	A4	2	コピー	1	GTZ	寄贈
Ⅲ- 42	Project "Promotion of Organized Rural Self " Bulletin No. 01, 02	B5	4	オリジナル	1	GTZ	寄贈
Ⅲ- 43	飲料水・生活用水集中給水源選定規則及び衛生条件 (モ ンゴル語)	A4	5	コピー	5	保健省	寄贈
Ⅲ- 44	飲料水衛生条件及びモニタリング (モンゴル語)	A4	4	コピー	4	保健省	寄贈
Ⅲ- 45	ドルノゴビ井戸会社パンフレット (モンゴル語)	B5変形	1	オリジナル	1	ドルノゴビ井戸会社	寄贈
Ⅲ- 46	ドルノゴビ井戸会社保有機材リスト (和訳)	A4	1	コピー	1	ドルノゴビ井戸会社	寄贈
Ⅲ- 47	Introduction of "Chandmani Dundgobi" Shareholding Company	A4	1	コピー	1	ドンドゴビ井戸会社	寄贈
Ⅲ- 48	ウブルハンガイ・アイマグのソムにおけるIndia Mark2ポ ンプ設置井戸リスト(和訳)	A4	2	コピー	1	ウブルハンガイ県	寄贈
Ⅲ- 49	修理中の水関連施設の建設利用に関する契約書 (和訳)	A4	1	コピー	1	ウブルハンガイ県	寄贈
Ⅲ- 50	放牧地に設置された井戸の改修工事における付帯工事記 録シート (和訳)	A4	2	コピー	1	ウブルハンガイ県	寄贈
Ⅲ- 51	BEMM 社紹介 (英文)	A4	1	コピー	1	BEMM CO., LTD.	寄贈
Ⅲ- 52	GeoMaster Limited社紹介 (英語)	A4	4	コピー	1	GEOMASTER LTD	寄贈

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III-53	GeoMaster Engineering社紹介(英語)	A4	1	コピー	1	GEOMASTER ENGINEERONG	寄贈
III-54	GeoMaster Limited社パンフレット	A4	1	オリジナル	1	GEOMASTER LTD	
	畜産・牧草地管理						
55	Rangeland and Water Management	A4	4	コピー	1	Gobi Regional Growth Initiative	寄贈
56	遊牧民定住化における地理的問題(和訳)	A4	72	コピー	1	Institute of Geoecology	寄贈
57	モンゴル国農業学術調査報告書	B5	182	コピー	1	東京農業大学	寄贈
58	Report of the Field Survey on Identifying Herdman Household's Income and Expenditure in Arkhangai, Uyurkhangai, Omnogobi and Dundgobi	A4	45	オリジナル	1	BEMM CO., LTD.	寄贈
59	遊牧社会の現代(和書)	B5	298	コピー	1	青木書店	
60	モンゴルの牧養力、生態環境、質の評価(和訳)	A4	88	コピー	1	Institute of Animal Husbandry	
	社会経済・一般						
61	Mongolian Statistical Yearbook 2001	B5	301	オリジナル	1	統計局	購入
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65	ACTION PROGRAM OF THE GOVERNMENT OF MONGOLIA	B5	54	コピー	1	食料農牧省	寄贈
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