

2. モンゴル国の電力事情

(1) 概要

① 国土の概要

首都ウランバートル、面積165万6,500km²、人口237万人(1993年)、言語モンゴル語(公用語)、カザフ語、宗教チベット仏教(ラマ教)、民族モンゴル人(全体の95%)カザフ人など、政体共和制、通貨トゥグリク:Tug(1米ドル=460トゥグリク1995年6月現在)、国内総生産GDP12億7,000万米ドル(1992年) 21の県、324の村が下部行政組織を構成

② 政治経済

1990年の市場経済導入後の混乱と貧困の続くモンゴルに対し、日本は数々の支援を実施し来ている。95年には、約80億円の経済協力を実施している。中でもウランバートルに位置する第4火力発電所(540MW)は、45億円の有償資金協力、20億円の無償資金協力を実施、設備の老朽化で電力供給率の低下して同発電所のボイラー4缶を中心に制御系、燃焼システム改善、ミルの減速機、パルプ交換等を実施。これまでに3回の無償資金協力(10億未満/回)を実施している。

② 資源

石炭資源の推定埋蔵量は、200億トンといわれている。今回要請のタバントルゴイ炭坑開発計画では、石炭の埋蔵量50億トン、地下250m以内に賦存し、内1/3が原料炭(7,000kcal/kg)と言われているが、輸出のための輸送距離が最短でも1,000kmあることが開発のネックと成っている。

石油は、推定埋蔵量4億トン、天然ガスの推定値はない(Far Eastern Economic Review, Asia 1993)

国内の包蔵水力は5,836MW程度である。(1975年の「水資源複合計画書」)

③ エネルギー需給

主たる商業エネルギーは国産石炭と輸入石油製品で、大半エネルギーが発電用(石炭の60%)と暖房用に利用されている。エネルギー源は、若干の水力、風力、太陽光を除けば、石炭が80%程度を占めている。

石油は、単独システムのディーゼル発電用や自動車等の運輸用。

水力発電所は、2ヶ所(200KW、524KW)。

ロシアから電力(最大60MW)の輸入を行っている。

1992年には、ロシアから80万トンの石油、中国からは、銅鉱とのバーターで5万トンの石油を調達している。

1992年現在の国民一人当りの発電電力量は1,222kwh、一次エネルギー消費量は石炭換算で約1.6トンで、寒冷な気候とエネルギー効率が低いことによる。

ゲルによる遊牧生活から、都市部への定住生活への移動がエネルギー消費を拡大させている。

(2) 電気事業と規制

①現状

電気事業は、中央政府の燃料・エネルギー省(MOFAE)が、監督している中央エネルギー・システム(CES)が、首都のウランバートルを含む3県と周辺の6県(人口の約50%)を対象に石炭火力による電力供給と熱供給(工場へは蒸気、民生用に熱水)。残りは、単独電力システムを運用する企業体によって12の県下の234村の中心地においてディーゼル発電(一部水力発電)及び別個に建設されているボイラーから熱水供給を実施。

1991年からの民営化によって、発電所、炭坑、電気通信は、政府が51%の株を保有することとしている。

(3) 電力設備

①発電設備

1992年の走発電設備容量は1,034MWで石炭火力とディーゼルによっている。CESは、この内約790MWを占めている。単独システムによる発電設備192MW、自家発が52MWと成っている。

CESは、5地点の火力発電所(ウランバートル第2(18MW)、ウランバートル第3(148MW)、ウランバートル第4(540MW)、ダルハン(48MW)、エルデネット(36MW)、単独システムのチョイバルサン(24MW)を所有している。

他は、ディーゼル100KW~300KWのユニット型、水力発電所は前述の2ヶ所(200KW、524KW、5~10月発電可能後は凍結による閉鎖)、風力発電設備は、ゲル生活者(17万人)を対象に50W(5,000台普及)を導入。

今回見学の第4発電所については、1,700人の従業員を有し、蒸気条件566℃ 144ata、発電出力540MW、所内率11%、バガヌール炭3,500kcal/kg、復水機は空冷式(3塔の冷却塔)、石炭使用量は、熱供給のため夏4,000~4,800t/日 冬6,000t/日、使用水量 900t/日。

当日の運転状況は出力160MWで運転(発電端効率を石炭のカロリー2,750~3,000kcal 石炭消費量を4,000~4,800t/日で試算すると25~30%であった。)し、所内消費電力25MW、60MWをロシアから購入していた。石炭は、2,750kcal/kgで石の混入が多く故障の原因になり安いとのこと。過去2回の日本からの無償協力により、電気集塵機の取付や微粉炭製造機上部の微粉炭漏洩ヶ所にセラミックタイルを張るなどの処置によりだいぶ状況は良くなったとのこと。95年の45億円の有償援助では、ボイラー4缶にたいして制御、燃焼システムの改善を実施。無償の20億円では、16台のミルの減速機の交換、バルブ100台の交換を実施する予定。定期検査については、消耗品の交換を対象に1年毎、大修理を対象は4~5年を対象に実施しているが、資金難とロシア製品のため部品の調達極めて困難。技術者教育については、1年計画でセクション毎、CES管轄の訓練センターでは、おもに新人教育を実施している。環境に関する規制は、環境省にあるにはあるが、守られていない。これからの課題である。

②電力需給

'92年の国内総発電電力量は約29億万KWh（発電端）であった。

CESのデータは、'90年移行不明で90年におけるCESの発電量は、29億6,600万kwhで同年に置ける86%をしめた。総発電電力量34億6,600万kwhの内訳は、石炭火力88.5%、ディーゼルが11.5%であった。

旧ソ連からの輸入電力が2億2,800万kwhで、旧ソ連への輸出電力が7,600万kwhであった。

所内用電力の5億6,500万kwhと送電ロスの3億2,300万kwh控除した国内消費電力量は、27億3,200万kwhであった。

CESの販売電力量22億5,700万kwhの用途別内訳は、産業用89%、住宅用4.3%、公共その他用が6.7%である。

③送変配電設備

CESは首都のウランバートルを含む3県と周辺6県（セレンゲ、ブルガン、アルハンガイ、ドルノゴビ、ドブ）の主要都市に電力を供給している。供給区域は国土面積の約30%であるが、人口では約50%である。

CESは1992年現在、5ヶ所の石炭火力発電所から220kV送電線（回線延長1,050km）、110kV送電線（回線延長2,042km）、35kV送電線（回線延長1,844km）にて電力供給している。

CESの送電系統は、ロシアのイルクーツク付近に立地する火力発電所と220kV送電によって連係されている。配電電圧は、産業向け10kVと6kVまた、住宅向けが400Vである。なお、周波数は50Hzである。

（3）電源開発計画

CESの想定によれば、同系統の発電設備は1990年の702MWから2000年には1,515MWに増強される。設備の大半は、バガ・ヌール産炭地火力（100MW×2；400MW×1）など石炭火力となる見通しである。CESは既設火力の老朽化対策として、第3、第4火力発電所を改修を日本や米国の援助を得て実施中である。

水力発電については、2,000kw（5～10月まで可動、後は凍結のため休止）一基を建設中で、他に22万kwと1万2千kw（ともに通年可動可能）の発電所を計画中である。

風力発電については、50wの設備をゲル生活者（17万世帯）に対して、現在5,000台普及しているが、年間生産台数が700～1,000台であるので年間生産台数を増加させたい計画。

太陽光発電については、現在NEDOの実証試験として150セットが可動中である。

今後、ディーゼル発電のコスト（26円/kwh 遠い村では1,000km軽油をタンクローリー輸送）との比較によって、風力、水力、太陽光の導入可能性を見極めたい考え。

（4）電気料金

CESの電気料金は、1960年から'90年まで据え置かれてきた。

'91年の料金改訂後も電力量料金だけの単一料金制が採用され、工業・公共用0.18円/kwh、住宅用が0.09円/kwhとなっている。（1米ドル=85円）

ディーゼル発電のコスト高と住民、工場の一部が料金未払いのため、国が補助金を出している模様。

V. 作成資料

工場近代化計画

1. 日本側の提案した新スキームの概要

(1) 基本コンセプト

「各省・自治区レベル工業重点サブセクターの開発プラン」

戦略の策定及び当該サブセクターの近代化モデル工場の工場診断を実施し、当該サブセクター全体の工場の生産性向上及び地域経済の発展に寄与する。

(2) C/P機関

国家経済貿易委員会 各省・自治区人民政府 改善モデル工場
当該セクター担当中央官庁

(3) 工業重点開発サブセクター及び近代化モデル工場の選定方法

①工業重点開発サブセクター

実施前年度の予備調査において、「定期協議」を行い、中国側からの要請セクターを基に協議を実施し、最終的に3省・自治区/セクターを選定する。

②改善モデル工場

上記協議の合意を踏まえて、中国側が更に具体的に4工場/省・自治区/セクター（合計12工場）を選定する。その後、当該年度の予備調査において、最終的に9工場（3工場/省・自治区/セクター×3）を選定する。

(4) 調査実施期間

従来通り1年間を全体調査期間とする。

なお、本スキームを5年間程度継続実施し、本調査スキームによる開発効果について見極めることとする。

(5) 中国側への技術移転

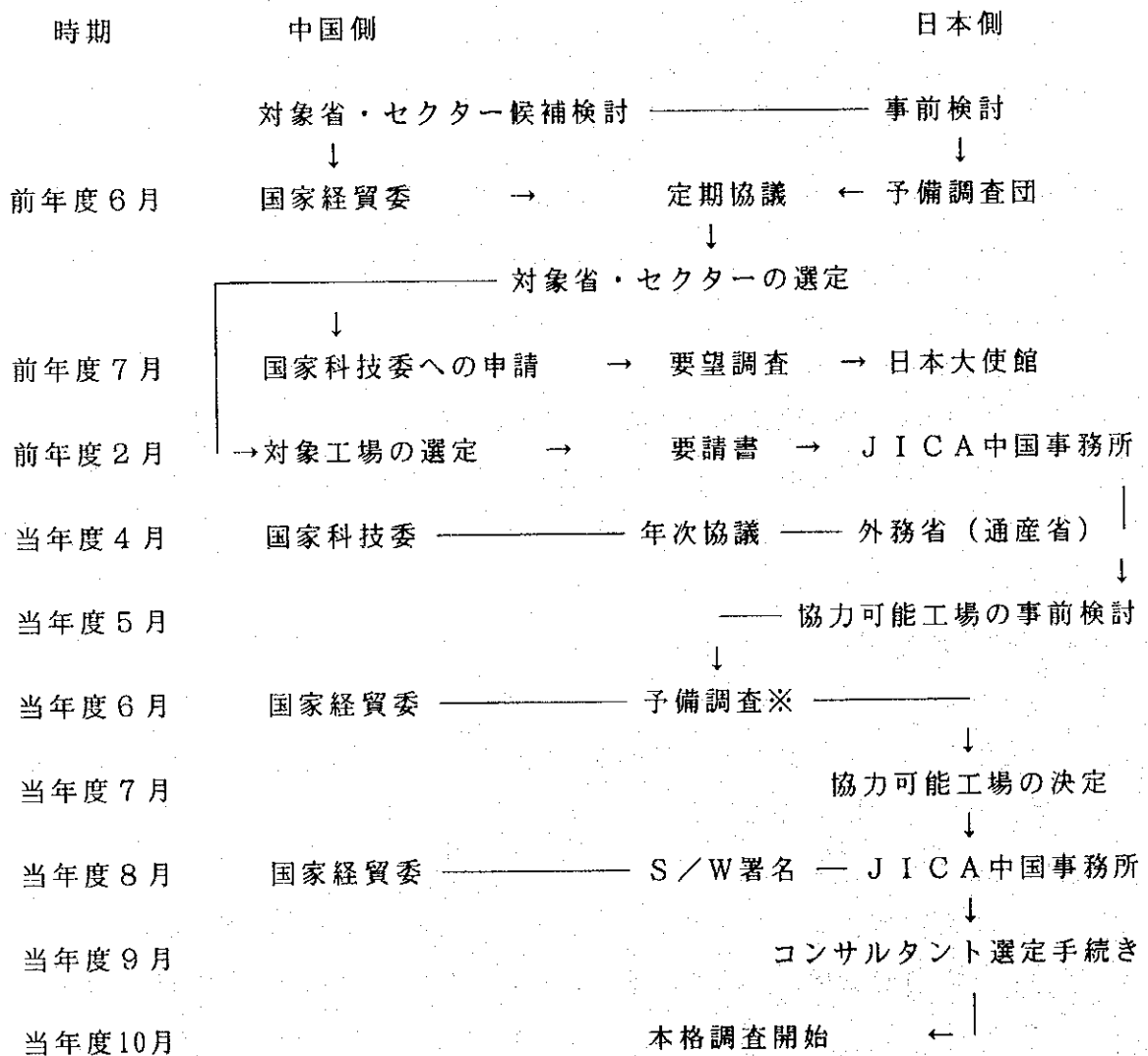
従来の個別工場への技術移転に加え、将来的には本工場近代化計画事業を完全に中国側へ移管することを可能とするため、次のとおり実施する。

- ① 毎年実施される「定期協議」の場において、中国側の「受け皿」について協議を深め、将来、本開発調査を実施することが可能な国家経済貿易委員会傘下の機関（コンサルタント等）を選定する。
- ② 可能な時期から、上記機関とのジョイント調査を実施し、技術移転を図る。
- ③ 将来的には、上記機関をローカル・コンサルタントとして部分的に現地調査を委託することも検討する。

(6) 実施開始年度

1997年度以降から実施することとする。

(7) フロー及びスケジュール



※予備調査は次年度に向けた定期協議を含む。

2. 新スキーム提案にいたる背景

- ・ 中国側の要請を受けて、1981年度から、工場近代化に係る協力を開始。工場近代化は、要請された個々の工場について工場診断を実施し、その結果に基づき、既存設備の利用に重点をおいた生産設備と製造技術に関する近代化計画の策定及び調査の期間中調査に参画する中国側専門家に対し、現地調査業務を通じて技術移転を行うことを目的に、中国側の要請を受けて、1981年度から、工場近代化に係る協力を開始した。1994年度までに延べ96件の協力実績がある。
- ・ また、同協力に基づき提言を受けた中国国営企業のその後の状況を把握するために、1990年度に過去に調査対象となった工場のうち、延べ12工場を訪問し、その後の改善状況等について視察、ヒアリング調査を実施した。90年度調査においては、各工場の実施状況を詳細に把握すると同時に、本調査の一般的問題点の抽出を行い中国側の要望を含め対象工場確認選定基準の見直し等、今後の継続を前提として本プロジェクトの全体的見直しの必要性が確認された。
- ・ 90年度調査を踏まえ、平成4年度より新たに3ヵ年で、1981年度から平成元年度に調査を終了した57工場を対象に、今後のプロジェクト形成及びプロジェクト実現をより効果的に推進することを目的にフォローアップ調査を計画、実施した。調査の実施状況としては、90年度に12工場、92年度に2回延べ24工場、93年度に2回延べ9工場及び94年度に3回延べ13工場に対し現地調査を実施した。
- ・ 過去14年間にわたる協力の実績・経緯及びフォローアップ調査等の結果に基づき、大きく分けて次のとおりの現状のスキームにおける問題点・改善点が考えられる。
 - ① 工場近代化の方向性（重点サブセクター、重点地域）が明確でない。
 - ② 対象工場以外への技術移転（波及効果）が期待できない。
 - ③ 提言内容の実現率の低下（需要、原材料調達等外からの疎外要因によるもの、生産管理面等工場側の責任によるもの、資金手当ての困難等がその原因と考えられる）。

- ・ したがって、今後の工場近代化計画のより効果的・効率的な協力を行う観点から、上記の問題点の改善を中心に日本側関係機関の間で検討した結果、1997年度から、新スキームで実施することを提案することとなった。

(工場近代化計画の調査の流れ)

中国側からの要請書取り付け

翻訳

関係省庁協議

- ・調査対象工場の概要
- ・企業改造の目標・内容
- ・協力可能案件の絞り込み

予備調査団派遣

- ・工場概要調査
- ・要請内容の確認

実施案件の採択

(平成6年度から実施)

事前調査団派遣

- ・工場概略調査
- ・実施細則協議・署名

実施細則の署名

- ・JICA中国事務所への実施細則案の送付
- ・事務所長と中国国家経済貿易委員会との実施細則協議・署名

JICA本部へ署名済実施細則書送付

本格調査コンサルタント選定

本格調査(10ヵ月程度)

- ・現地調査
- ・国内分析作業
- ・最終報告書提出

(工場近代計画の実績) ①

年度	工場名	診断対象製品	報告	F U
8 1	北京電冰箱廠	冷蔵庫	82. 3	9 2
	北京洗衣機廠	洗濯機	82. 3	9 0
	上海塑料印刷廠	プラスチック ラミネート	82. 5	9 0
	無錫塑料一廠	プラスチック 射出成形	82. 5	9 2
	上海無線電三廠	ラジオ・カセット	82. 6	9 2
	上海無線電十二廠	可変抵抗機	82. 6	9 2
8 2	天津無線電廠	ラジカセ用メカ	83. 7	9 2
	天津電声器材廠	スピーカー	83. 7	9 2
	天津第一塑料廠	圧延フィルム	83. 6	9 2
	天津第十四塑料廠	電線被覆	83. 6	9 2
	復旦電容器廠	ポリバリコン	83.10	9 0
	煙台第二家具廠	木製家具 合板	83.11	9 4
	上海硝子瓶二廠	ガラス瓶	83.12	9 2
	天津光学儀器廠	赤外分光光度計	83.11	9 2
8 3	上海墨水廠	ボールペンインキ	84. 8	9 2
	上海整流器総廠	制御整流素子	84.11	9 0
	上海整流器総廠	整流器	84.10	9 0
	安徽省合肥儀表廠	計器 (計量計)	84.11	9 2
	北京塑料摸具廠	プラスチック金型	85. 3	9 2
	無錫塑料摸具廠	金型	85. 3	9 2
8 4	南京化工廠	レゾルシン	85. 8	9 0
	大連化工廠	アンモニア 硫酸	85. 8	9 2
	錦西化工総廠	苛性ソーダ PVC	85. 8	9 4
	大冶冶煉廠	粗銅 硫酸	85. 8	9 3
	第一重型機器廠	圧延機材 溶鋼炉	85. 7	9 4
	無錫市鋼鉄廠	電炉鋼	85. 7	9 0
	耀県水泥廠	ポルトランドセメント	85. 8	9 3
	工源水泥廠	スラッグセメント	85. 8	9 2
8 5	石家庄鋼鉄廠	鋼材 他	86. 6	9 4

(工場近代計画の実績) ②

年度	工場名	診断対象製品	報告	F U
85	山東萊蕪鋼鐵廠	圧延鋼材 他	86. 6	9 4
	上海第十鋼鐵廠	ブリキ板	86. 6	9 0
	上海新建機器廠	セメント機械	86. 6	9 2
	山東活寒廠	アルミピストン	86. 8	9 4
	無錫電線廠	電気ケーブル	86. 8	9 0
	大連硝子廠	工業用製板ガラス	86. 7	9 2
	瀋陽硝子廠	普通板ガラス	86. 7	9 2
86	瀋陽鑄造廠	鑄造物	87. 5	9 2
	重慶ポンプ廠	計量ポンプ	87. 5	9 3
	襄陽軸承廠	自動車ベアリング	87. 5	9 4
	常州托拉機廠	ハンドトラクター	87. 7	9 0
	貴州アルミ廠第一電解	アルミニウム	87. 8	9 3
	合肥化工廠	PVC	87. 8	9 2
	広西銅鋅山	採鋅 選鋅	87. 7	9 4
瀋陽第一砂輪廠	砥石	87. 8	9 0	
87	重慶合成加工廠	フェノール樹脂等	88. 9	9 3
	鄭州勘察機械廠	ボーリング機械	88. 7	9 4
	瀋陽医療器械廠	X線装置	88. 8	9 0
	韶関掘削機製造廠	コンクリート・ミキサー 等	88. 9	9 3
	湖南印刷機器廠	オフセット印刷機材	88.10	9 4
	南昌閥門廠	バルブ	88. 9	9 4
	上海大陸機械廠	鋼塊・鑄鋼物	88.10	9 2
力風塑料成型機廠	プラスチック成型機	88.12	9 4	
88	蘭州石油化工機器廠	反応器 熱交換器 等	89.11	9 3
	四川空気分離設備廠	空気分離設備	89.11	9 3
	上海合金廠	抵抗合金 熱電対 等	89.10	9 2
	陝西印刷機器廠	グラビア印刷機械 等	89.10	9 3
	揚州捺染廠	漂白・染色・捺染織物	90. 7	9 3
	丹東工程液圧機械廠	油圧ユニット	90. 6	9 2

(工場近代計画の実績) ③

年度	工場名	診断対象製品	報告	F U
89	四川江北機械廠	横置式スクロールディスチャージ沈下遠心分	91. 3	
	南京第二鋼鉄廠	合金鋼	91. 3	9 3
	北京第三綿紡績廠	綿糸・綿布	91. 3	9 3
	湘潭圧縮機械廠	移動式中圧スクリュコンプレッサ	91. 3	
	常州絶縁材料廠	ポリプロピレン・フィルム	91. 2	
	遼陽製薬機械廠	ガスライジング設備	91. 3	
90	鞍山紅旗托拉機製造廠	ブルトローザー	92. 1	
	広州鋼管工場	亜鉛メッキ溶接鋼管	91.11	
	山東栖霞工具総工場	片目片口スパナ	92. 1	9 4
	湖北機械工場	自動車等部品加工用専用工作機械	91.12	
	上海紡織総架工場	ヘルドフルーム及びその付属品	92. 1	
	広州油脂化学工場	液体洗浄剤	91.12	
	瀋陽毛布工場	タオルカバー、バスタオル 等	92. 1	
91	太原西山石膏工場	β型半水石膏粉、焼成石膏	92.12	
	羅定麻紡織工場	変性ラミー、麻糸、化繊混紡	93. 1	
	浦元建設機械工場	トラッククレーン	93. 1	
	嘉興毛工場	ウーステッド、アンゴラウール	93. 1	
92	四川第一綿紡織染色工場	衣料用ポリエステルフィラメント・ビスコース織物	94. 1	
	瀋陽建築機械工場	タワークレーン、油圧クレーン	93.12	
	無錫動力機工場	ターボチャージャー	93.12	
	無錫工作機械工場	軸受研削盤	93.12	
	本溪市助剤工場	沈降炭酸カルシウム	94. 1	
93	揚州ディーゼルエンジン工場	ディーゼルエンジン	94.10	
	南通風機工場	坑内軸流ファン、発電所用ファン	94. 9	
	上海送風機工場	ルーツブロワー	94.10	
	丹東フィルター工場	除塵用フィルター	94.10	
	常州フォークリフト工場	蓄電池式フォークリフト	94.11	
	合肥鋳山機器工場	油圧ショベル	94.12	
	東方絶縁材料工場	ポリエステルフィルム		

(工場近代計画の実績) ④

年度	工場名	診断対象製品	報告	F U
93	無錫汚水処理機器工場	自動単式及び自動枠式フィルター・プレス		
94	瀋陽電機工場 蘇州紡績器材工場 蘇州試験器工場 常熟キャブレター工場 揚州シリンダーライナー工場 上海中国電工工場 無錫無線パーツ第2工場 無錫ポンプ工場	大中型交流電動機 Z系列直流電動機 車輛ブレーキ性能試験器等 キャブレター エンジン用シリンダーライナー エナメル線 圧電セラミックフィルター等 水中ポンプ、循環ポンプ等		

SCOPE OF WORK
FOR
THE STUDY
ON
MASTER PLAN FOR INDUSTRIAL DEVELOPMENT
IN

AGREED UPON BETWEEN

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

I . INTRODUCTION

In response to the request of the Government of the _____ (hereinafter referred to as " _____ "), the Government of Japan has decided to conduct the Study on Master Plan for Industrial Development in _____ (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

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

The present document sets forth the scope of work with regard to the Study.

II . OBJECTIVE OF THE STUDY

The objective of the Study is to formulate a comprehensive master plan for industrial development, with a view to selecting promising industrial projects and programs for inclusion in the "Fifth Five-Year Development Plan (1996-2000)".

III . SCOPE OF THE STUDY

In order to achieve the above objective, the Study shall cover the following items:

<GENERAL>

1. Review of General Background

- 1. 1 macro-economic situation and trend
- 1. 2 national development policy
- 1. 3 review of the "Fourth Five-Year Development Plan"
- 1. 4 trade and foreign investment
- 1. 5 infrastructure; human resources

<INDUSTRIAL SECTOR>

2. Review of Industrial Development

- 2. 1 industrial development policy
- 2. 2 laws, acts, and regulations
- 2. 3 production and trade trend
- 2. 4 review of the "Prefeasibility Study for Industrial Development in _____ done by JICA in 1978 and other important studies by other organizations

3. Survey on Industrial Sec

- 3. 1 present status of the industry
(production, import and export, marketing, etc.)
- 3. 2 factory survey
- 3. 3 on-going and future development projects by _____
- 3. 4 identification of metallic minerals
- 3. 5 identification of non-metallic minerals
- 3. 6 location, reserve of metallic and non-metallic minerals
(literal survey)
- 3. 7 quality analysis of metallic and non-metallic minerals
(within 10 mineral resources)
- 3. 8 location, reserve, and quality of petroleum and natural gas
(literal survey)
- 3. 9 review of policy on the exploitation of natural resources

<MASTER PLAN>

4. Formulation of a Comprehensive Master Plan

4. 1 selection of promising industrial sub-sector(s) and project(s) which indicate to be viable
4. 2 project descriptions
4. 3 implementation schedule
4. 4 cost estimation
4. 5 recommendation of development program for each of the selected sub-sector(s) and project(s) including the followings:
 - infrastructure
 - human resources
 - government incentives
 - institutions and organizations for industrialization
 - technology
 - market
4. 6 recommendation for foreign investment promotion

5. Conclusion

IV. WORK SCHEDULE

The Study shall be carried out in accordance with the tentative schedule of the Study as shown in Appendix

V. REPORTS

JICA shall prepare and submit the following reports in English to the _____

1. Inception Report : 15 copies
2. Progress Report : 15 copies
3. Interim Report : 20 copies
4. Draft Final Report : 30 copies
5. Final Report and its Summary Report : 30 copies

VI. UNDERTAKINGS BY THE GOVERNMENT OF _____

1. To facilitate smooth conduct of the Study, _____ shall take necessary measures:
 1. 1 To secure safety of the Japanese Study Team
(hereinafter referred to as "the Team")
 1. 2 To permit the members of the Team to enter, leave and sojourn in _____ for the duration of their assignment therein, and exempt from foreign registration requirements and consular fees
 1. 3 To exempt the members of the Team from taxes, duties, fees and other charges on equipment, machinery and other materials brought into, and out of, _____ for the conduct of the Study
 1. 4 To exempt the members of the 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 Team for their services in connection with the implementation of the Study

1. 5 To provide necessary facilities to the Team for remittance as well as utilization of the funds introduced into _____ from Japan in connection with the 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 Team to take all data and documents (including maps, photographs) related to the Study out of _____ to to Japan
 1. 8 To provide medical service as needed (Its expenses can be charged to the members of the Team.)
2. _____ shall bear claims, if any arises, against the members of the 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 Team members.
- 3 Directorate General of Industry, _____ (herein after referred as "____") shall act, as the counterpart agency to the Team as well as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
4. _____ shall, at its own expense, provide the Team with the following, in cooperation with other organizations concerned:
4. 1 Available data and information related to the Study
 4. 2 Counterpart personnel
 4. 3 Suitable office space with necessary equipment in _____
 4. 4 Credentials or identification cards

VII. UNDERTAKINGS BY JICA

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

1. To dispatch, at its own expense, a series of study teams to _____
2. To pursue technology transfer to the _____ counterpart personnel

VIII. CONSULTATIONS

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

Appendix

Tentative Schedule of the Study

Order of Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	▲ F/R
Work in Japan		▬			▬		▬					▬	▬		▬		
Work in —			▬	▬					▬	▬				▬			
Report Output		△ Ic/R		△ P/R				△ It/R					△ Df/R				

Abbreviations : Ic/R:Inception Report
 P/R :Progress Report
 It/R:Interim Report
 Df/R:Draft Final Report
 F/R :Final Report.

VI. 收集資料

Feasibility Study of Application Heat Pump in the Middle of China

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China Academy of Building Research

ABSTRACT

It is humid and cold in winter and also very hot in summer in the middle of China, which is located in the middle- and downstream area of the Yantze River basin geographically. In recent years the owners and designers of commercial buildings have been paying more attention to selection of heating and cooling mode in this area. In this paper the feasibility study of application of air/water and air/air heat pumps to commercial buildings for heating and air conditioning and the economic and benefit analysis are described. It is proved that the application of heat pump possesses reasonableness and energy saving compared with traditional heating and air conditioning mode.

1. INTRODUCTION

In the middle- and downstream area of the Yantze River basin it is densely populated area and booming economic area. Although the average temperature is higher than 0 C, it is humid and low sunshine in winter, and also very hot in summer. The winter lasts two to three months and the average indoor temperature only is 4 to 6 C; and the summer lasts three to four months, the average indoor temperature reaches to 32 to 33 C and more.

It is the need for commercial competition that the owners and designers of commercial buildings such as hotels of middle and high standard, offices, apartments and department stores have been paying more attention to finding and installing the economic and reasonable heating and air conditioning mode. From the point of view of energy supply this area is not rich in coal and oil resources. At present the city gas only can meet the needs for cooking. To install central boiler plant and to supply heat for space heating with pipeline system are not reasonable due to the short winter time. The heat pump as a heating mode in winter can use and recovery ambient low level energy and waste energy, and in summer it also is an air conditioner.

Here the economic analysis for two kinds of heat pump systems are carried out. It is proved that the heat pump systems are economically reasonableness compared with traditional systems.

2. ECONOMIC ANALYSIS OF AIR/~~AIR~~^{water} HEAT PUMP AS A HOT AND COLD WATER GENERATION

In recent years the air/water heat pump as a hot and cold water generation is applied to commercial buildings gradually because it can be convenient to form various central air conditioning systems with air conditioning equipment and terminal. Here is an actual example to describe the economic benefit.

(1). Engineering example:

The calculation and analysis objective is an office building located in Shanghai. The total floor area is 3,828 M². The air/water heat pump as a hot and cold water generation to form a central air conditioning system with fresh air handling units and fan-coil units.

(2). Calculation method:

According to the thermal performance of envelope, the number of persons occupied, the power of electric installations, the annual dynamic load calculation for air conditioning and heating is worked out by using HASP/ACLO/8001 program developed by Japan. The economic benefit calculation uses two schemes, that are scheme I: the fresh air volume L = 0 M³/h.room; scheme II: the fresh air volume L = 100 M³/h.room.

(3). Compared schemes:

* The scheme I' is the compared scheme of scheme I (there are no fresh air supply in both scheme I and I'). In fact the scheme I' is the original air conditioning scheme before retrofit. In scheme I' one set of Type RH-2109CLE air conditioner with electric heater made by HITACHI of Japan installed in each room in the office. The rated cooling capacity is 2100 Kcal/h, the rated input power is 1 KW, the electric heater power for heating is 2 KW. The total sets are 114 for the whole office.

* The scheme II' is the compared scheme of II. In scheme II', the traditional chiller is as a cold water generation and the electric boiler is as a hot water generation. The fresh air handling units and fan-coil units are the same in scheme II.

(4). Calculation result:

* The benefit for electricity.
The result is listed in Table 1.

Table 1

	I elec. (KWh)	I'elec. (KWh)	I saving (KWh)	II elec. (KWh)	II'elec. (KWh)	II saving (KWh)
Heating	59,794	134,520	74,726	114,135	260,999	146,864
Cooling	111,213	200,070	88,857	134,079	175,686	41,607
Year	171,007	334,590	163,583	248,214	436,686	188,471

It is shown that compared with scheme I' the scheme I will save 164,000 KWh of annual electricity consumption, and compared with scheme II' the scheme II will save 188,000 KWh of annual electricity consumption.

* The benefit for investment.

The total primary costs for each scheme is listed in Table 2.

Table 2

Scheme	I	I'	II	II'
Total primary cost(RMB)	600,000	476,000	1,020,000	895,600

Although the cost for scheme I is higher 130,000 RMB than that for I', the scheme I not only solves the problem of shortage of cooling and heating capacities but also reduces the indoor noise, improves the outdoor environmental noise. Compared with the scheme I', the scheme I saves 163,000 KWh, if the price of electricity assumes 0.25 RMB/KWh, the total benefit from electricity saved is about 40,000 RMB, so the payback time for more cost of the scheme I will be 3.25 years. The cost for scheme II is more 120,000 RMB than that for scheme II', but the electricity consumption saving is 188,000 KWh, i.e. the money saving of electricity for scheme II is 47,000 RMB. The payback time is 2.55 years. Besides these, if we consider the 48 M2 of floor area as a machine room of chiller and electric boiler, then the scheme II will earn the rent about 100,000 RMB per year. From the analysis it is evident that compared with traditional heating and air conditioning mode the air/water heat pump system possesses great economic benefit, the increased primary investment can return within 2 - 3 years.

3. ECONOMIC ANALYSIS OF AIR/AIR HEAT RECOVERY HEAT PUMP USED IN FRESH AND EXHAUST AIR SYSTEMS

Using the air/air heat recovery heat pump system, the fresh air will be heated in winter and will be cooled and probably dehumidified in summer from the exhaust air. Thus, the evaporating temperature will be increased and the condensing temperature decreased greatly compared with the common air/air heat pump system. So the Seasonal Energy Efficient Ratio (SEER) and the Seasonal Performance Factor for Heating (SPFH) will be greatly improved.

Three schemes for treating fresh air are shown in Fig.1 and the economic analysis for three schemes were worked out.

The air/air heat recovery heat pump system was designed as a 2000 M3/h fresh air handling unit for heat recovery of exhaust air from air conditioning system according to the design parameters of outdoor air conditioning and the frequency hour number of outdoor air enthalpy in Shanghai area, using ORNL heat pump software. For Shanghai area the SEER can be reached to 4.12 and the SPFH to 6.37.

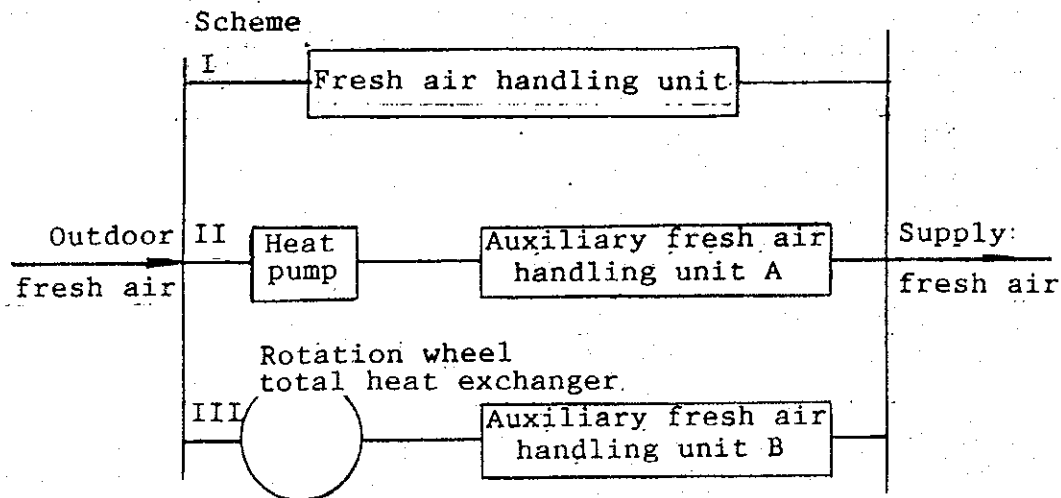


Fig.1 Three schemes for treating fresh air

The results for economic comparison are listed on Table 3.

Table 3

Items	I	II	III
Annual heating load for fresh air (KWh)	61,541	32,274	33,447
Annual cooling load for fresh air (KWh)	26,565	12,895	19,231
Annual electricity for heat recovery (KWh)	0	7,911	2,841
Total investment (RMB)	11,088	21,788	23,678
Investment for heat recovery (RMB)	0	10,700	12,590
Annual operation cost (RMB)	16,623	10,621	12,054
Annual operation cost saving (RMB)	0	6,002	4,569
Payback time (year)	---	1.8	2.8

It is evident from table 3 that the application of air/air heat recovery heat pump system to the fresh and exhaust air systems not only can be less paybake time for one year than the rotation wheel total heat exchanger system but also can save about 25% of heat consumed with treating fresh air in the whole year. It will improve energy usage factor in the building. So the application of this kind of heat pump possesses reasonableness and feasibility.

4. CONCLUSION

The application and development of air/water and air/air heat pump systems are a scientific reasonable way to solve heat source in winter and to stop heating by direct electric heater in the middle of China especially in the middle- and downstream area of the Yantze River basin. It is proven that the heat pump technology is an energy saving technique.

REFERENCE

- [1]. Wang Xunchang, Wang Lai, Shen Jinming and Long Weiding, "The economic and benefit analysis of air/water heat pump system of No.3 building in Shanghai Jin-jiang club", Institute of Air Conditioning, China Academy of Building Research and Shanghai city construction college, 1992.
- [2]. Xu Wei, "The feasibility study of application of heat recovery heat pump system to fresh and exhaust air system", Institute of Air Conditioning, China Academy of Building Research, 1992.
- [3]. Lang Siwei, Fan Youchen and Feng Tieshuan, "ORNL heat pump (air conditioner) computer program was transplanted on personal computer and development and research", Institute of Air Conditioning, China Academy of Building Research, 1988..

モンゴル・インフォメーション

95 / 3 / 26

1. ホテル

・ウランバートル	☎ 3 2 0 6 2 0	S : \$ 6 0	D : \$ 9 0
・バヤンゴル	3 2 8 6 3 2	S : \$ 6 0	D : \$ 9 0
・スター (オズ)	3 5 8 1 0 3	S : \$ 6 0	D : \$ 8 0
・ニューキャピタル	3 5 8 2 3 5	S : \$ 5 0	D : \$ 6 6

2. レストラン

・レインボークラブ	(韓国)	☎ 3 2 9 0 3 2	サハラー通り、セルブ川沿
・マンドハイ	(中華)	3 2 2 2 0 4	国立デパートの北西
・モスクワ	(ロシア)	3 6 0 0 9 1	サハラー・トラジバンの東
・ニュースター	(西洋)	5 5 9 3 6	サハラー・トラジバンの南

3. 関係機関

・対外関係省 (ジグジット書記官)	☎ 3 2 3 2 6 8	UBホテル前
・通商産業省 (ガンホヤク担当官)	3 2 3 0 6 9	レンインミュージアム前 (通産ビル)
・国家開発庁 (有原専門家)	3 2 4 5 6 1	日本大使館北側
・食糧農業省 (水口専門家)	3 5 8 8 5 7	エンフタイワン通り東
・GSM (坂巻リーダ)	3 3 1 0 8 4	エンフタイワン通り西
・MTC (酒井専門家)	3 1 1 9 0 5	中央郵便局
・国鉄 (前田プロマネ)	3 1 1 2 5 2	UB駅近く
・UNDP (村田次長)	3 2 1 5 3 9	イルクーツク通り
・日本大使館 (香川書記官)	3 2 4 4 0 8	ナイランダム通り
・JOCV (佐々木調整員)	3 2 5 9 3 9	通産ビル11階
・JICS (バトバエル所員)	3 1 2 5 4 9	通産ビル12階

* 担当者が少ないので訪問前には必ず電話等でアポイントをお願いします。

* 勤務時間は9:00~12:30 14:00~18:00 (政府機関は土曜半休、日本側は土曜閉庁)

4. 国際電話

国際電話は無償援助により世界の殆どの地域と直通で話せます。料金支払いの関係で発信は登録電話に限られます。UBホテル、バヤンゴルホテルには日本へのコレクトコール専用ブース(ジャパンダイレクト)が有ります。費用は\$5/分(夜間、休日は3割引)。モンゴル宛:001-976-1-(番号)、東京:0081-3-(番号)、北京:0086-1-(番号)となります。例:外務省0081-3-3580-3311

* なお、3月26日より夏時間に移行し、日本との時差はありません。

5. 換金

1) レート: \$1 = Tg $\frac{460}{420}$ (5月 -2月)

変動相場制です。再交換は一般的に困難ですが、殆どの場所で米ドルが使えます。

2) 換金方法: 現金の場合、通常はホテルで換金します。TCの場合は国立貿易開発銀行でドル現金に両替をする必要があります。銀行の営業時間は平日午前に限られます。

3) カード: ホテル、ドルショップでアメックス、ビザ、JCBが使えます。

6. 航空機

1) エクセス: 20kgを越える場合の料金は、北京-UB間で\$2/kg。観光シーズンには最終のチェックインに回されたり、エクセスの受付をしないことがあります。

2) リコンファーム: 出国72時間前までに航空会社の事務所で行なって下さい。

3) チェックイン: 出発1時間半前に済ませて下さい。出国空港税は\$8。

4) 帰国便: CA902 (火金 13:30) OM223 (月水土 11:30)

* モンゴル航空は毎週火曜日にソウル往復チャーター便を運行しています。

7. 通関

1) 北京着: 段ボールは開けられます。トランクはX線検査をされますのでワープロ等電気製品の申告は必ず行なって下さい。手荷物は男性週刊誌が要注意です。生鮮食品も没収されます。これら食品は北京のスーパー等で購入し、中国から持ち込むのが賢明です(夜9時まで営業)。荷物申告不要の場合は青ゲートを通過して下さい。

2) 北京発: 段ボールは紐かけが必要です。出発案内が不明瞭で搭乗ミスが生じています。

- 3) UB着：トランクはX線検査されることがあり、電気製品がある場合は開けられることもあります。持込には殆ど制限ありませんが出国時の荷物、通貨申告書に記入して下さい。
- 4) UB発：禁製品（恐竜卵の化石）の持出しが発覚し、当地マスコミに報道されました。
*最近では北京経由でも日本からスルーで携行荷物が到着しています。

8. 車両

- 1) 借上車両：空港には適当なタクシー／リムジンサービスがないことから事前に手配が必要です。JOCVで管理しているJICA所有車の使用料はガソリン代（40¢/1ℓ）臨時ドライバー代（\$15/日）地方出張には旅費（\$10/日）を加算します。モ側が車両を提供する場合には\$20～30/日が目安ですが念のため料金を確認して下さい。
- 2) タクシー：現地事情に通じていれば利用可能。昼Tg120/km、夜\$1/kmが目安運賃は走行メーターで見ます。夜間は治安が悪く利用を避けて下さい。なお、バヤンゴルホテル内のジョルチン旅行社ではハイヤーサービスを行なっています。
- 3) バス：Tg30の均一料金で便利ですが混んだ車両はスリが多く注意が必要です。

9. 郵便、ラジオ、テレビ

- 1) 手紙：日本から約2週間で到着しますが、当地からは1カ月以上を要しているため、郵便物は北京から郵送するか、日本に帰国される方に託送をお願いしています。
- 2) ラジオジャパン：8:00 17845kHz 9:00 17810kHz 11:00 15210kHz 13:00 15410kHz
16:00 9750kHz 18:00 9750kHz(NHK第一) 22:00 9750kHz 4:00 11800kHz
- 3) テレビ：一般のテレビではモンゴル放送（チャンネル6はNHK）ロシア放送（以上SECAM）が、また、衛星設備があればスターテレビ、CNN、NHK（以上NTSC）北京中央電子台（PAL）が受信出来ます。

10. 買物

- ・国立デパート：4階に土産物、ドルショップがあり、キャビアがあればお買い得。
- ・外貨ショップ：デパート近くにあり、食品、衣類、家電、雑貨等を販売
- ・バヤンゴル：ホテル裏面にあり、カシミア製品がお奨め品
- ・食品ザハ：国立サーカス近くにあり、肉、野菜、食料品を販売

11. ビジネスサービス、通訳

- 1) UBホテルにはビジネスセンターがあります。当地の電圧は240Vですがワープロ等は電圧異常による故障が多発しておりますので、充電型の機種が安全です。
- 2) 援助窓口は英語が共通語として一般的になっていますが、現地調査等現場の活動に日蒙通訳が必要な場合はなるべく日本で手配して下さい。中国系の内蒙出身者の通訳は民族間の微妙な問題があります。ロシア語の場合は技術用語上有利なことも有ります。

12. 携行機材

機材のコンサイニーは、『プロジェクト名（専門家）C/O JICA/JOCV Mongolia Office P.O. Box 682 No. 1110 MITI Bldg. Ulaanbaatar 13 Mongolia』として下さい。空送の場合には引取手続を委託して行なえるJAC（提携先：日通上野支店）が、海送の場合は北京事務所のある日新（☎03-3238-6502）が便利です。

13. 安全対策

窃盗を主とした未成年者の犯罪が増加しています。邦人からも、スリ、パスポートの盗難、酔払いの乱暴、警官のいやがらせ等の報告が寄せられています。特に夜間の外出はご遠慮下さい。止むを得ず外出する場合には、車によるドアツードアの慎重な行動をお願いします。また、ホテル内での盗難も報告されていますのでご注意下さい。

14. 健康管理

部屋の空気が乾燥しており風邪をひき易い環境です。外出後はうがいをする。風呂の湯を溜めておく。濡れたタオルを部屋に掛けておく等の工夫が必要です。また、湯の供給も限られますので湯が出る時はすぐご利用下さい。B型肝炎も多く帰宅時には手を洗うよう心掛けて下さい。

15. 文字

一般的にはキリル（露）文字で表現されています。

キリル А В Г Д Е Ё Ж З И Й К Л М Н О П Р С Т У У Ф Х Ц Ч Ш Щ Ъ Ы Ь Э Ю Я
7Л7аバット A B W G D E Y O J Z I I K L M N U O P R S T U U F K H T S C H S H S H / I I E Y U J A

EMBASSY OF JAPAN
 ULAANBAATAR, MONGOLIA

Japan ODA Project list

1995. 6. 15

1. Training Programs		(Trainees)	97
Group			56
Individual			29
Friendship			10
Customs(CCC)			2
2. Individual Expert		(Experts)	9
Satellite Communication Technology	(Mr. FUJIKAWA)		1
International Telephone Exchange	(Mr. ITO)		1
Tourism policy			2
Increase of Food Production	(Mr. MIZUGUCHI)		1
Darkhan Metal Works	(Mr. SUZUKI)		3
Fish Farming	(Mr. NEMOTO, Mr. KUBO)		2
Rice Cultivation Technology	(Mr. NAGAMINE, Mr. MITSUHASHI Mr. SASAKI)		4
Export Control			3
Air Pollution			1
3. Project Cooperation		(Experts)	5
Geological Survey Mongolia Project			4
(Mr. Sakamaki, Mr. SHIMIZU, Mr. SATO, Ms. URIMOTO)			
Economic Reform & Development			1
(Mr. ARIHARA)			
4. JOCV Volunteers		(Volunteers)	20
Japanese Language Teacher	(Mr. IDE, Ms. FUKUDA, Ms. SAKURAI, Ms. SUZUKI, Ms. IMOTO)		5
System Engineer	(Mr. ITO, Ms. SHIOZAKI, Mr. MUKOZAKA)		3
Electrical Engineer	(Mr. SUGIYAMA, Mr. IINO)		2
Dress Making	(Ms. SUMI)		1
Audio-visual	(Mr. KOMATSU, FUJITA)		2
Food Processing	(Ms. SUGAWARA)		1
Volleyball	(Mr. INOUE, Mr. NISHIMURA)		2
Aikido	(Mr. TSUJI)		1
Printing	(Mr. HONMA)		1
Radio Communications	(Mr. HIRAYAMA)		1
Telephone Line Works	(Mr. TAKEDA)		1
5. Provision Equipment			
Computer to MTU			\$0.5M

6, Development Study

Topographic Mapping of Ulaan-Tsav
 Pre-FS for the Development in Tsav Area
 Water Supply System in UB.
 Study on Comprehensive Coal Development & Utilization Plan
 Integrated Agricultural & Rural Development in Central Region
 Forest Resources Management Study
 Mineral Exploration in Altantal Area
 Study on Telecommunication Network in Ulaanbaatar

	(U\$ million)		
	FY 93	FY 94	FY 95
7, Grant Aid			
Improvement of Medical Equipment	5.4		
Thermal Power Station(No. 4) in UB	3.1		
Transshipment Facilities at Zamyn-Uud Station	11.2	10.7	
UB Dairy Product Factory		8.8	
Refrigerating System of Darkhan Meat Plant		9.3	11.9
UB City Bus Project		10.6	14.0
Construction of Facilities for Grain Storage			12.4
Pilot Construction work of UB-Baganuur		0.6	13.9
Non-project Grant Aid	20.0	10.0	
Increase of Food Production Aid (KR2)	2.0	2.5	
Food Aid (KR1)	3.0	3.0	
Cultural Activities	0.5		
Small Scale Grant Assistance	0.1	0.2	0.3
8, Direct Government Loans			
Railway Transportation Rehabilitation Project	33.2	46.8	
9, Japan Human Development Trust Fund (UNDP)	0.5	0.5	
Computerization of Customs Data			
Management Education Project			

(第4回モンゴル支援国会合用資料：議題1)

最近のモンゴル経済情勢

1. 経済情勢(93年-94年上半期)の全体的評価

90年以降の急激な市場経済化に伴い、マイナス成長と高いインフレ率を示し続けていたモンゴル経済は、94年に入りようやく収束を見せつつある。93年のGDP成長率は前年比-1.3%(92年同指標-7.6%)となり、また94年上半期において、工業総生産高の低下も底打ちの様相を示している。さらに94年1月より8月までの月間平均インフレ率は4.2%となり(93年同時期の同インフレ率は13.1%)、鈍化の方向に向かいつつある。

以下のような経済構造改善にも進展が見られる。

(経済構造改善)

(1) 国有財産の私有化、民営化

91年より国有企業の資産をクーポン券により国民に配分。94年7月までに大・中企業の9割、小企業のほぼ全てが民営化を完了。但し、火力発電所、炭鉱、非鉄金属鉱山等、主要旧国営企業については国が資産の51%を保有。

(2) 価格の自由化

94年7月公共輸送料金が自由化され、エネルギー(電気・光熱)料金を除き、全ての小売価格、料金が自由化。

(3) 貿易の自由化

輸入ライセンス、輸出税の撤廃。輸入関税率の統一(15%)。

(4) 銀行の改革

国立銀行によるモノバンク制度から中央銀行と商業銀行の二層制度へ移行。

(5) 法制度の整備

有価証券法、外国投資法等の経済関連法を多数新規に制定。

2. 問題点及び課題

上記のように経済面における改善は認められるようになったものの、経済・社会インフラの未整備、エネルギー(特に電力)の供給不足、限定されている外貨獲得源(大半を銅輸出に依存)等の問題は解決されておらず、経済構造としては以前同様の脆弱な状態のままといえる。

他方、経済制度の急速な変化は社会的にも多くの影響を与え、貧困問題や失業問題を顕在化させ、また犯罪数も急増している。

(1) 重要性が指摘される中長期的課題

(イ) 民営化企業の一層の体質改善(経営者の育成と資本形成、強化)

(ロ) 輸出産業の振興

(ハ) 海外よりの投資増大に向けたインフラ整備

(ニ) 財政赤字の縮小努力(特に国内貯蓄率の向上)

(ホ) 財政規律の引締め(課税ベースの拡大、徴税機関の強化等)

(2) 今後の経済動向を展望する上で留意すべき点。

(イ) 工業

94年上半期の工業生産は、前年同期比で+2.8%と90年以降初めて生産増を記録。しかしながら、特定部門（ダルハン市の製鋼等）の伸びが全体の増加につながっており、前年に比し生産減となった部門が多数を占める。

(a) 鉱業

*外貨の主要な稼ぎ手である「エルデネット」銅・モリブテン選鉱工場の稼働確保。

(注)同工場は年産40万トンの銅精鉱(銅含有率30%)を生産する能力があるが、93年は33万トンの生産に終わった。

*蛍石の生産と輸出の回復

(注)91年の生産では世界の8%(中国、メキシコに次いで世界第三位)を占め、モンゴルの重要な輸出品。94年上半期の生産は92年より連続低下。その要因はロシアにおける需要減、新規輸出先を発見する要あり。

(b) エネルギー

*エネルギー生産(主に火力発電)の9割が依存する石炭の採掘量確保。

(注)94年上半期の採掘量は前年同期比-8%。

*中央エネルギー・システム(石炭による火力発電)の電力供給は89年以降低下中。(注)94年上半期の供給量は年比-3%。

(c) 繊維工業

国家調達制度の廃止、国内流通制度の崩壊、国境貿易の拡大等により、中央部の当該工場は地方よりの原料入手に困難を来たしている。

(ロ) 貿易

石油製品の輸入は94年上半期において前年同期比-65.9%。工業原材料、生産機材関連品の輸入は-15.6%。

(ハ) 雇用

7月1日現在、失業者数は7万人を超え、94年年頭より約1700人増、93年年頭より約1万人増。

(ニ) インフレ

94年6、7月の月間インフレ率は、それぞれ0.4%、0.04%を記録したが、6月末の公共輸送料金の値上げ等により7月には15.1%と上昇。

(ホ) 社会情勢

(a) 経済情勢の悪化に伴い失業率が増加する中、犯罪(特に窃盗、強盗)、若者の飲酒癖、酩酊者の増加は社会不安を加重しており、憂慮すべき。

(b) 給与の実質的目減りにより教職者の転職、学齢児童の就学率の低下等社会主義時代の数少ないプラスの遺産に弊りあり。

(c) 92年末において全人口の16%であった貧困層が、94年上半期には全人口の26%までに増大。

(丁)

第4回モンゴル支援国会合 日本代表团ステートメント(骨子)

議題1. モンゴルにおける経済安定化政策及び経済改革

1. 冒頭発言

- (1) 本年は、我が国のODA40周年にあたる。我が国は、戦後、米・世銀等の支援を受けながら復興と発展の道を辿り、今日、世界最大の援助供与国となり、150を超える国が援助のパートナーとなっている。我が国としては、世界のトップ・ドナーとしての責務を果たすべく今後とも国際的なイニシアティブを発揮していく所存である。
- (2) モンゴル支援国会合は、冷戦終了後の世界の潮流となっている民主化、市場経済化を支援する象徴的な支援国会合であり、我が国も極めて重視しているものである。主催国の首席代表として、各参加者に対して今次会合の成功に向けて最大限の協力をお願いしたい。

2. 我が国の援助政策

まず、我が国援助の基本政策に触れつつ、対モンゴル支援に当たっての基本的な考え方について述べたい。

(1) ODA大綱とその着実な運用

我が国は、国際貢献の重要な手段の一つとして、ODAを位置づけ、第5次中期目標に基づき、その時着実な増加に努めている。その際、全ての国に対し自動的に我が国援助を増大させるのではなく、我が国ODA大綱に掲げられた4原則に則って、メリハリのきいた援助実施に努めることとしている。4原則とは第一に環境と開発の両立、第二にODAの軍事用途及び国際紛争助長への使用回避、第三に途上国の軍事支出や大量破壊兵器の開発、製造、武器の輸出入の動向への十分な注意、第四に民主化促進及び市場志向型経済導入の努力並びに基本的人権及び自由の保障状況の勘案からなる。

モンゴルの民主化と市場経済化に向けての真摯な取り組みは、まさにODA大綱の原則に適ったものであり、我が国としてこれを積極的に支援していく所存である。

(2) きめの細かい援助

我が国は、援助を効率的・効果的に実施するため、途上国の異なる発展段階に応じ、無償資金協力、有償資金協力、及び技術協力を有機的に組み合わせつつ、バランスのとれた援助に努めている。具体的には、3つのバランス、すなわち、①経済インフラ整備等の伝統的な分野

における協力と地球環境保全、人口、エイズ、民主化支援、開発における女性の役割の考慮（WID）といった新たな分野における協力とのバランス、②橋や道路の建設等「モノ」を主体としたハード面の協力と人作り、制度強化といったソフト面での協力とのバランス、③経済基盤整備等の大型援助と地方公共団体やNGOへの支援等の草の根レベルの小規模援助とのバランス、に留意することとしている。モンゴルは、150カ国余りに及ぶ我が国の二国間援助対象国の中でもこのような我が国の援助政策が最も良く反映された形で各種支援策が実施されている国の一つとなっている。

3. 今後の発展に向けた諸課題

モンゴル経済は、民主化と市場経済化に伴う当面の混乱を克服しつつあるが、今後の経済成長の見通しについて楽観視は禁物である。モンゴルが今後とも、改革のモメンタムを維持しつつ、持続的な経済成長を達成していく上で、我が国としては、特に、以下の政策目標を重視しており、今後とも、各種スキームを通じ、右目標に向けたモンゴル政府の取り組みを支援していきたいと考えている。

(1) 持続的開発の確保に向けた経済基盤の強化とソーシャル・セーフティ・ネット整備

モンゴルにおいては、天候に大きく左右されやすい農牧畜業が経済の基盤となっており、また外貨収入の大半を銅輸出に頼る状況にある。現下の産業構造を多様化させ、より付加価値の高い産業、例えばカシミヤを初めとする繊維・皮革業や食肉加工業を育成していくことが、成長志向の経済を構築していく上で不可欠である。このために必要な国内外からの投資を促進させる前提として経済インフラの整備が緊急の課題となっており、国際的な支援が求められている。我が国はこのような観点から、エネルギー、運輸、通信等の各分野でのインフラ整備に対する協力を通じ、モンゴルの経済基盤の強化を積極的に支援していくこととしている。

他方、前回会合でも指摘したとおり、市場経済化に向けた諸改革を円滑に実施していくためには、これに伴って発生する社会的弱者の保護のためのソーシャル・セーフティ・ネット整備が不可欠である。具体的には、失業・貧困問題、医療・教育セクターの劣化等の深刻化しつつある社会問題への対応が真剣に検討される必要がある。こうした重要な政策課題については、午後のセッションにてより詳細に議論されることを期待している。

(2) 市場経済化の本格的稼働に向けた人材育成と制度強化

これまで報告されたように、民営化をはじめとする構造調整はかなり進捗しつつあると言える。しかし、これはあくまで大きな枠組み作りの問題に過ぎず、新たな枠組みの中で経済

を適切に運営していくためには、実際の担い手となる人材の育成と関連制度の整備が不可欠である。このような観点から、我が国は91年以来、経済政策アドバイザーの派遣と研修員の受け入れを累次実施し、マクロ経済政策、市場経済組織、企業経営管理等の分野でのノウ・ハウの移転に努めており、本年11月にはウランバートルにおいて「モンゴルの市場経済移行に関するセミナー」の開催を予定している。また、92年度以降、モンゴルの法律整備に関する専門家の派遣・招請を実施し、今週の国会で審議される予定の国家公務員法案の起草等に貢献してきた。更に、市場経済化を支える制度強化のため、UNDPを通じ、首都の通関事務のコンピューター化に対する協力とマネージメント教育にかかる研修プログラムを実施してきている。我が国は、こうしたいわば「目に見えないインフラ」の整備に向けての政策支援を一層強化していく所存である。

(3) マクロ経済の安定化に向けた一層の改革努力

モンゴル経済を持続的な成長軌道に乗せるためには、以上に述べたとおりハード及びソフト面での基盤整備が重要であるが、マクロ経済の安定はそれらの政策課題を達成するための大前提であると言える。モンゴル政府及び国際機関からも説明のあったとおり、これまでの安定化政策は概ね順調に進捗しており、我が国としてもモンゴル政府の努力と実績を高く評価している。しかしながら、既に述べたとおり、モンゴル経済は未だ不安定な構造から脱却しておらず、引き続き慎重なマクロ経済運営に努める必要がある。

まず、第一に財政規律の引き締めを継続し、財政赤字を一層削減することが必要である。そのためには、徴税機関の強化、課税ベースの拡大等による税収入の確保と共に補助金の見直し等による歳出削減に努める必要がある。第二に、金融部門においても引き締め策の継続によるインフレ上昇率の更なる抑制が必要である。また商業銀行システムの整備・強化は、個人レベルでの貯蓄率の向上のみならず、民間企業育成と産業振興にも不可欠であろうことを協調したい。

4. 結語 - 対モンゴル支援の重要性 -

- (1) 我が国は、モンゴルがアジアの他の旧社会主義諸国に先駆けて民主化・市場経済化を断行し、経済・社会的困難を乗り越えてきたことは、国際社会の注目に値すると考えている。我が国としては今後とも一層モンゴルの新たな国づくりに向けた取り組みを支援して行く所存であり、モンゴルが移行経済国の範となることを期待するものである。

- (2) 現在、世界的景気の低迷に伴い、ドナーによるいわゆる「援助疲れ」が指摘されており、DACの統計によれば93年には加盟国全体で前年比11.38%もの減少を記録した。援助資金のダイバージョンが起こりがちな状況にあるが、モンゴルがこれまで進めてきた改革努力を更にエンカレッジしていくためには、継続的な協力が不可欠であり、各国、国際機関に対し、モンゴルへの積極的支援を強く呼びかけたい。
- (3) 最後に、今次会合において、モンゴルの経済社会開発の方途につき率直かつ活発な意見交換が行われ、モンゴル側よりドナー側の評価に値する明確な経済政策が表明されると共に、これを受けてドナー側より積極的な対モンゴル支援が表明されることを期待して結びの言葉としたい。

UNITED NATIONS DEVELOPMENT PROGRAMME

MONGOLIA

UPDATE



April 1995

UNOFFICIAL PUBLICATION

ECONOMIC UPDATE

Inflation Developments

Inflationary trends in the first quarter of 1995 displayed both encouraging and troubling signs.

Total consumer price inflation for the quarter was 11.5%, as compared to 21% for the same period in 1994. January and February have tended to be months with high inflation since prices were liberalized, due to higher demand for food and other consumer goods during the traditional New Year Festival, and due to government pay increases that generally take place in January. From this perspective, the considerable decrease in inflation compared to the first quarter in 1994 is quite encouraging.

However, March inflation was 4.9%, higher than January or February and considerably higher than March, 1994's rate of 3.3%. This was almost entirely due to a 40% increase in meat prices. Meat prices tend to rise in spring, as supply is low due to herders' preference not to slaughter animals until they have been fattened during the summer, and as demand rises due to the depletion of meat put away by families for the winter. Nevertheless, so sharp an increase was unexpected and is a source for concern.

In response to this, in early April, the Ulaanbaatar municipal government announced price ceilings on mutton and beef, approximately 15-25% lower than market prices at the time. The result of this action was predictable and reminiscent of the situation early in the reform period when meat was rationed; although prices are lower, meat is now extremely scarce in food markets. Makhimpex and Makh Tos, the two state meat supply companies, which were expected to smooth supply gaps during this period seem to be unprepared for this job, which raises questions about the role of these organizations. During the command economy era they controlled procurement and distribution of nearly all meat; at present, with most meat distribution in private hands, their principal role is to stockpile supplies for periods of shortage.

Monetary and Banking Developments

Savings accounts in the Mongolian banking system continued to grow at a healthy rate in the first quarter. Togrog-denominated deposits rose by 16.7%, and dollar-denominated deposits by 22.4% (a portion of which simply reflects the recent depreciation of the togrog vis-a-vis the dollar.)

On April 1, the Bank of Mongolia lowered the floor on deposit interest rates from 6% per month to 5%, the second such cut in the last six months. This could allow commercial banks to lower lending rates, and ease the financial pressures on the commercial banks caused in the last year by high deposit rates and difficulty in collecting on a substantial amount of problem loans. It remains to be seen, however, how the combination of lower interest rates and the recent depreciation of the togrog will affect savings behavior.

Bank lending grew by 15.3% in the quarter, a faster growth rate than anticipated. Money supply, measured by M2, grew by 14.2% in the first quarter, also an uncomfortably high growth rate. These two trends give grounds for concern that the government's hope to bring 1995 inflation down to less than 30% might be difficult to accomplish. At present the government is considering various proposals which have been floated for financial support of the crop sector, although most of the extensive low-interest credits which that sector received in 1994 are now in arrears. How these new requests for support are handled will be one key test of the government's ability to continue to reduce inflation. There has been widespread discussion in the government recently about the need to "support production", a phrase which generally connotes low interest credits for large industrial enterprises. If this is the case, it could be an indication of possible wavering in the commitment to the tight monetary stance which has done so much to stabilize the Mongolian economy.

The Bank of Mongolia, as part of its move toward indirect monetary controls, has now introduced a refinancing facility. This step was also part of the move to end the use by commercial banks of central bank clearing credits as a general source of funds, rather than for the very short-term transaction smoothing purpose for which they are designed. With Central Bank bill auctions and the introduction of the refinancing facility the ground is being prepared for the ultimate lifting of direct controls on commercial bank lending. The key remaining prerequisite for this important step is the strengthening of the commercial banks' ability to function properly without those controls, and the Central Bank's supervisory and regulatory capacity. The AsDB/World Bank Technical Assistance to the Financial Sector program, which will start in May, should play a pivotal role in creating a sounder banking system.

Exchange Rate Developments

In the first quarter of the year the togrog depreciated by approximately 12% against the dollar in the parallel market, to a current exchange rate of Tg 465 = US\$1.00. At one point the parallel market rate was as low as Tg 490 = US\$1.00, but it stabilized quickly in the 455-465 range. The official interbank rate has fallen by only 5%, to Tg 434 = US\$1.00.

This fall in the value of the togrog has provoked some concern, probably unjustified. With inflation of nearly 12% in the quarter, this nominal depreciation represents a maintenance of the same real exchange rate in the parallel market, and a 6% real appreciation of the togrog in the interbank market. In the nearly two years since the establishment of a unified floating exchange rate of Tg 400 = US\$1.00 on May 31, 1993, the togrog has appreciated enormously in real terms. Aggregate inflation since then has been approximately 222%. With only 15% nominal depreciation, and with much lower inflation in hard currency trading partners, this means that the togrog prices of imports have been rising much more slowly than the prices of locally produced goods. The competitiveness of Mongolian exports is also adversely affected by this trend, as is the profitability of exporters of copper and cashmere, whose togrog production costs are rising much more rapidly than the togrog value of their dollar export revenues. It should be noted that real appreciation of the togrog was inevitable and healthy for a period after the freeing of the exchange rate, as the first

free rate almost certainly undervalued the local currency. The fact that imported consumer goods are now much more affordable than they were two years ago represents a major improvement in the Mongolian standard of living. However, continued appreciation in real terms could be dangerous. The only way to ensure a stable nominal exchange rate for the togrog in the future will be to continue to reduce the inflation rate.

From this perspective, the appearance of a nearly 7% gap between the parallel and official exchange rates should cause more concern than the depreciation itself. This is the largest gap that has existed since the exchange rate was freed, and it appears to suggest that the Central Bank may be attempting to resist market pressures on the togrog. Although the Bank's wish to maintain confidence in its currency is understandable, particularly given the fragility of that confidence during the stabilization period, the only way to maintain that confidence ultimately is sound macroeconomic policy-making.

Foreign Trade Developments

Reported trade in the first quarter of 1995 showed a very strong increase over 1994. Exports rose by 74.8%, to US\$108.7 million, and imports also rose by 136.5%, to a total of US\$57.7 million. This surge in exports was a result of increased volumes of shipments from several sectors, most importantly copper and other mineral products and steel products from the Darkhan Minimetall plant. Exports to Russia fell from US\$21.5 million to US\$16.1 million, a drop from 34.5% to 14.8% of the total. Exports to China rose in absolute terms, from US\$10.1 million to US\$12.9 million, but fell to 11.9% of the total. Exports to the U.S. in this period were an impressive US\$3.8 million, much more than in previous years. The biggest change in export markets was new and very large copper exports to Switzerland and Sweden. Switzerland received US\$34.2 million, or 31.5% of Mongolia's total exports in the first quarter, almost all of it copper concentrate. Sweden received US\$11.35 million worth of copper concentrate, or 10.5% of the country's total exports in the first quarter.

Most of the increase in imports was due to large purchases of Russian petroleum products. Increases in imports of many consumer goods were also recorded; however these still represent a small percentage of the total, suggesting that most imports of such goods are not being captured by the statistical authorities.

Industrial Output and Real Sector Developments

Overall industrial output was up by a strong 8.8% in comparison with the first quarter of 1994, with substantial increases in production in a wide range of sectors, particularly mining, including coal, copper, molybdenum and flourspar. A 145% increase in output at the Baganuur coal mine, which has returned to the levels of earlier years after major problems in 1994, was particularly welcome during the winter.

There was also strong performance in several sectors which were hit most hard during the transition period. Chemicals (up 69.4%), construction materials (31%), machinery

repair (116.6%) and the food processing industry (26.6%) all registered strong gains. It is noteworthy that the State Statistical Office, whose numbers we are citing, has altered its reporting methods, and now measures changes in output valued in constant 1995 prices, instead of the constant 1986 prices which have been used for the past few years. Since 1986 prices were the creation of central planners, and 1995 prices reflect market forces much more accurately, this shift is most welcome.

One sector which continues to show signs of trouble is textiles, which many observers have hoped would be a leading source of growth in the medium term. Wool and wool garment output in the first quarter was down 14% from the same period in 1994. But this was one of the only weaknesses in an otherwise impressive industrial picture.

Reported official unemployment numbers declined in each of the first three months of the year resulting in a cumulative drop of 17%, to 62,200 people, the lowest level since September, 1993. It should be noted here that the figures quoted indicate the number of registered unemployed only, and that there is a tendency for the unemployed not to register with the local employment offices as the latter have offer limited or no employment offerings and there are therefore no or few benefits of registering.

Budget Developments

Fiscal performance in the first quarter was strong, as total government revenues of Tg 24.4 billion exceeded expectations by 6.8%, and expenditures of Tg 23.4 billion were 23.3% below expectations. On the revenue side, individual and enterprise income taxes were well above plan, as were customs revenues. Most tax revenues are still collected from a relatively small number of large enterprises, pointing to a continued need for adjustments in the tax laws and improvements in tax administration that would allow a broadening of the tax base. Sales taxes, which are collected almost entirely at the wholesale level, as well as from a small number of hotels and restaurants, fell short of expectations. Hopes for substantial new revenues from cash privatization of some state assets have not yet been realized, although the government is preparing measures to move ahead with this plan.

Expenditures were below plan in almost all categories, including government wages, capital spending, and social spending (only slightly lower than planned) and "other expenditures."

Of course it should be noted that these trends in revenues and expenditures are probably due to normal fluctuations, and it is too early to say if they will be sustained over a longer period.

ESAF UPDATE

The Mongolian Government's Medium-Term Adjustment Program is being supported by the IMF's Enhanced Structural Adjustment Facility (ESAF) to promote:

- a. domestic and external financial stability

- b. restore economic growth
- c. foster development of a market-based economy

In the first-year of implementation of the ESAF arrangement (October 1993-September 1994) all structural performance criteria were met, including:

- a. abolition of consumer goods rationing
- b. initiation of voucher-based privatization
- c. steps to improve the balance sheet of commercial banks

However, among the stabilization performance criteria, a waiver for exceeding the NDA (net domestic assets of the banking system) limits had to be granted by the Fund's Executive Board.

The main objectives of the program in the second year (October 1994-September 1995) are to improve the economic growth performance from 2.5 percent in 1994 to 3.5 percent in 1995, to reduce inflation from 66.3 percent in 1994 to 17 percent in 1995, and increase the holdings of net international reserves by more than \$10 million during 1995.

The achievement of these objectives will require a continued adherence to right monetary and fiscal policies, maintenance of liberal trade and exchange regime, reduction in Government's role in the economy, and legal and institutional reforms to encourage private sector participation in a broader range of economic activities. In particular, the program emphasizes further privatization of publicly-owned industries and businesses to generate at least Tg 2 billion in sales revenue during 1995; greater flexibility in public enterprise pricing in order to raise the prices of publicly sold goods and services to at least cost-covering level; and a further streamlining of approval procedures applying to foreign investment. Furthermore, the Government has initiated steps to eliminate remaining regulatory ambiguities and constraints that impede the development of the private sector. To this end, new legislation has been adopted to permit secondary market transactions in securities and to strengthen ownership and other property rights.

In the fiscal area, with the implementation of revenue-enhancing and expenditure control measures, the current budget surplus will be increased from about 3 percent of GDP in 1994 to 4 percent of GDP in 1995; this will allow larger financing of public investment programmes from own resources. The level of the overall budget deficit will decline and, particularly, no recourse to bank financing will be made.

In the monetary area, monetary policy will continue to focus on reducing inflation while strengthening the external position. Broad money growth is targeted to slow to 33 percent in 1995, about half the increase in 1994. The growth in bank credit will be correspondingly reduced, with a large part of reduction taking place in credit to government and public enterprises; this will ensure greater availability of bank credit to the private sector. In particular, the Central Bank will not lend directly to public enterprises and agricultural and energy sector enterprises are required to repay to Government most of their outstanding obligations.

Interest rates will continue to be determined by market forces, with the remaining administrative controls on the rates being relaxed and eventually removed.

The central bank will move from direct to indirect instruments of monetary management and the framework for control will be shifted from credit ceilings on banks to a monthly targeting of the monetary base.

Financial sector reform will continue to be implemented. In particular, the reform will focus on the problem of non-performing loans and the establishment of a loan-loss provisioning system and recapitalization of banks.

In the external sector, the current account deficit is projected at \$ 100 million in 1995 or 10 percent of GDP. Mongolia will require external financial assistance of about \$170 million during 1995 to cover the current account deficit and meet the reserve target. Late last year, the IMF had estimated a financing gap of \$35 million for 1995 which, hopefully by now, has been bridged.

The exchange rate of the Togrog will continue to be determined in the market, with official intervention in the market limited to smoothing out minor fluctuations.

MANAGEMENT DEVELOPMENT PROGRAMME UPDATE

Public administration and civil service reform

The formulation of a Public Administration Reform proposal is one of the highest priorities of the Government of Mongolia's Management Development Programme (MDP) during the first half of 1995. This effort is being supported by the UNDP national execution project "Public Administration and Civil Service Reform" (MON/94/102).

The formulation process is being undertaken by National project teams coordinated by the Cabinet Secretariat. They have been organized in the following areas:

- Central ministries and the Cabinet Secretariat
- Line ministries
- Local administrations
- Legal issues

The National Project Teams have been supported by international consultants within the framework of Project MON/94/102. The information and analysis produced by the National Project Teams will be consolidated through a Business Strategy formulation process. This process will also allow the identification of the major policy issues related to the Public Administration Reform.

The Public Administration Reform proposal will be discussed by national and international experts, with the participation of international donor organizations, at the II Global MDP Workshop to be held in Ulaanbaatar in the period 22-24 June 1995.

Simultaneously, the implementation of the Government Service Law is being prepared by the Personnel Office of the Cabinet Secretariat with the support of the UK, Sweden and the UNDP. This law will enter into effect on 1 June 1995. The work being undertaken in the first half of this year includes the relementation of entrance examinations and performance appraisal (project MON/94/102), job classifications (UK ODA financed/RIPA executed), and civil service training and consultancy (Swedish BITS financed/SIPU executed).

In the second half of 1995 implementation strategies will be developed for both the public administration and civil service reforms.

MDP Global Workshop

A Second Global MDP Workshop is to be held in Ulaanbaatar in the period 22-24 June 1995. It will evaluate the first year of programme execution, discuss component action plans for the second year, and analyze new activities, programmes and project proposals. The major theme will be the discussion by national and international experts, as well as the international donor community, of the Public Administration Reform proposal.

Mongolian Business Development Center

The Center was established in October 1994 and its operations began immediately. It will serve as a bridge between pertinent Government agencies and the private sector. Hence, it is expected to become a focal point for small and medium size enterprise development in Mongolia.

Six Government agencies and six Mongolian private sector organizations are the Foundation Members of the MBDC and at this point, four major companies have become Sponsors of the Center.

The Center is an NGO and since the long term intention is for it to be self-sustaining, it has prepared its own Business Plan. This blueprint for management identifies skills and services to be developed within the Center and to be, in turn, marketed to Mongolian industry on a commercial basis. Broadly the skills and services to be offered will incorporate (1) business training for Mongolia's emerging entrepreneurs with emphasis on practical matters of day to day production and marketing; (2) business information, to be made available as person-to-person counselling as well as 'hard copy' materials drawn from an international data base, accessed by Internet, CD-ROM and publications held at the Center; (3) consultancy services specialized in business, trade, commerce and industry to be delivered into enterprises from the Center's Human Resource data-base; and (4) assistance to Mongolian industrial and service enterprises in the field of Business Plan writing, needs analysis, financial counselling, assistance to local and foreign entrepreneurs to locate partners for joint ventures, and assistance to Mongolian business men and women with bank loan applications. Concerning the Center's role as the focal point for promoting foreign investment in Mongolian enterprises, particularly the larger manufacturing, mining and service industries, it will offer a one-stop service to its Mongolian and overseas clients.

Privatized Enterprise Restructuring Project

A project formulation team consisting of two consultants is in town (April 28- May 6). The purpose of the mission is designing the project under the Private sector development component of the MDP the development objective of which shall be to help shorten the length and reduce the cost of the transition to a market economy by enhancing the capabilities of Mongolian institutions to undertake the restructuring of viable enterprises and thereby contribute to the construction of a dynamic private sector. Dutch funding for the project has been secured.

POVERTY ALLEVIATION PROGRAMME UPDATE

The Government is now in the final stages of institutionalizing the National Poverty Alleviation Programme management structures allowing for flexible and decentralized allocation of resources under unified management and simple operating procedures that ensure effective, transparent and targeted poverty alleviation activities.

In designing the structure, the Government has carefully looked at experiences of other countries with similar programmes and social funds. Hence, it has divided the Poverty Alleviation Fund into four thematic subfunds (Local Development, Employment Promotion, Social Assistance and Women's Development Fund), thus allowing funds to be channeled to specific sectors of interest through a variety of mechanisms.

The principle underlying this set-up is to allow the Government and donors to channel funds towards specific poverty alleviation actions accordance with priorities/preferences, while at the same time ensuring simple implementation and reporting procedures that ensure: use of existing structures (rather than separate new institutional channels); maximum involvement of beneficiaries in the identification, formulation and appraisal of individual activities to be financed under the PAF; central monitoring, reporting and accountability on the use of funds; and effective and efficient management support to the local levels as required for the rapid implementation of high impact activities.

Subfunds

Local Development Fund (LDF):

This subfund will most likely be the first one to become fully operational. IDA, having earmarked a \$ 10 million credit (an agreement was recently initialed between IDA and Government - the Agreement goes to the IDA Board for formal approval in June), has taken the lead in defining the precise operational procedures for the LDF. These procedures are articulated in a Project Implementation Manual (PIM) which includes general LDF guidelines and more specific Activity Area Guidelines.

The LDF has been designed to provide financial resources to projects that are identified, formulated and implemented at the local level. Financing from the sub-fund is specifically targeted towards urgent needs covering health, education and income generation projects, generally through public works schemes.

The activity areas are the thematic areas within which LDF resources finance projects. Five LDF Activity Areas have thus far been developed: basic education; rural health services; public works; vulnerable group organization income generation; and support for the disabled. The Guidelines for each Activity Area contain a general description of the activity area objectives, a list of "Type Projects" included in the area, resource allocation criteria, impact evaluation indicators and "Type Project" appraisal criteria.

Social Assistance Fund (SAF):

The Social Assistance Fund is designed to complement the activities of the other PAF sub-funds through targeted transfers to the poorest of the poor. Government is currently discussing the precise development of the SAF within the context of the PAF. Once a decision is reached, a PIM similar to that of the LDF, including Activity Areas and "Type Projects", will be developed.

Employment Promotion and Women's Development Funds:

The precise operational procedures for the EPF - designed to alleviate poverty through the provision of credits to promote employment and economic growth - and the Women's Development Fund - designed to alleviate poverty through the provision of special credits to women and through the provision for women of other non-credit support - are expected to be clarified shortly with assistance from the AsDB. At this stage it is possible to say only that both schemes will most probably be designed around employment promotion and income generation targeted credit at market rates of interest through the commercial banking system.

Technical Assistance:

An NPAP technical assistance package is in the final stage of preparation. The project is designed to address key technical assistance needs, with particular emphasis placed on the strengthening of the NPAP institutional framework and the building of capacity to enable successful operationalization of the PAF. Particular attention in the latter regard will be paid to the LDF given the imminent infusion of the IDA credit. The PIMs described above will serve as a key training resource for these capacity building exercises. The technical assistance package will also include a precise definition of the operational procedures of the EPF and the LDF.

The technical assistance project will be financed by the UNDP and the Government through an IDA credit, under a unified management structure. The Asian Development Bank has also earmarked \$ 400,000 for NPAP institutional strengthening exercises and has indicated willingness to participate in the current project either as a cost-sharing partner or under parallel arrangements. A confirmation of AsDB intentions, and the precise nature of involvement in NPAP technical assistance delivery, is expected at an early date.

Project implementation is expected to begin within a month. A national NPAP implementation procedures workshop for Programme operatives at the local level will mark the inauguration of projects activities.

AGRICULTURE UPDATE

With IBRD/ IDA financing a recent study on wheat production in Mongolia has been completed. The report is not yet officially cleared for distribution. However, some of its main findings have been circulated for further discussion in the Government.

Under the command economy Mongolia achieved full self-sufficiency in wheat and annual flour consumption levels exceeded 100 kg per capita. This achievement was supported by the provision of subsidized investments (machinery and equipment) and seasonal inputs. However, as the country transformed to a market economy, these subsidies were terminated along with livestock feed subsidies that provided a market for substandard quality flour. Consequently, wheat production has declined dramatically; imported flour assisted in maintaining consumption.

Wheat requirements in Mongolia are derived from three principal components: the flour requirement is about 240,000 tons, equivalent to 300,000-340,000 tons of wheat, seed uses require 30,000-60,000 tons, and industry uses 15,000-16,000 tons. Thus, total requirements for high-quality wheat are about 350,000-400,000 tons. About 60 percent of the current wheat production meets high-quality requirements; the balance is used for feed.

Some 450,000 ha of wheat were planted in 1994, but due to inclement harvest weather, less than 400,000 tons (all qualities) were harvested. Future production, under improved management and technology, will be substantially determined by farmers' risk threshold prices and minimum profit incentive. The estimation of best and worst case scenarios suggest that future wheat areas and production ranges might be 225,000-344,300 ha and 370,000-537,700 tons, respectively; and require 30,000 to 90,000 tons of flour imports to meet domestic consumption needs.

Wheat production is not profitable at current farmgate wheat prices, and can become profitable only at prices approximating the import border price (about Tg 58,000 per ton). However, even at border prices profitability is marginal unless yields can be increased above prevailing levels. Fortunately, there is reason to believe the low wheat yields, in some locations, can be increased efficiently with improved management and technology. On the other hand, the wide variation in yields suggests full domestic wheat self-sufficiency is unsustainable in the long-run, and continued flour imports in the above mentioned range of 30,000 to 90,000 tons will be required to supplement domestic wheat production.

Similarly, the AsDB Agriculture study, preceding its planned Agricultural sector programme loan, is in its final stage. The draft report will be discussed in Manila and Ulaanbaatar within the next months.

Based on an analysis of the sector as a whole, and the identification of the major issues and problems, the Agricultural programme shall concentrate on five main areas of policy and institutional reform. These are: the restructuring and strengthening of the Government institutional framework; the restructuring of the grain production and processing sub-sector; improvements in the management and viability of the extensive livestock sector; the removal of conflicting elements within the legal framework; and a positive programme for the privatization of state ownership in the sector.

POWER SYSTEM MASTER PLAN UPDATE

Following contract negotiations in Manilla in late October 1994 between the Asian Development Bank, Ministry of Energy Geology and Mining and Worley International, a contract was signed between the Bank and Worley International for consulting services for the Mongolian Power System Master Plan (PSMP). The PSMP fits into the framework of coordination of the power sector development in Mongolia. Its main objective is to review the forecasts for heat and power and prepare an integrated, least cost development program up to 2015 taking into account the energy resources available, and also the severe fiscal constraints which will limit power system reinforcement and expansion.

The objective of this TA is therefore to prepare a realistic and affordable development program for the power sector. This, the Bank believes, will assist the Government to ensure the optimal use of scarce capital and physical resources, efficient development of the power sector and provide a framework within which to coordinate external assistance for the sector. The above objective is in line with the Bank's thrust on infrastructure development, there by providing potential for promoting economic growth.

The inception report on the PSMP TA was presented in December 1994. The Project Strategy and Management Plan is planned to be developed in May-July 1995. A draft Report shall be prepared by August for review by AsDB. The Final Report expected time is September-October 1995.

According to the Ministry of Energy, Geology and Mining, the upcoming Power System Master Plan will be the most complete energy master plan there will be in Mongolia. Earlier, it had been discussed to take that plan one step further, and develop an Energy Sector Master Plan, as also reflected in the Memorandum of Understanding between the AsDB and the Government.

However, this is still being discussed in the Government. The issue will be further discussed with the AsDB mission visiting in May 1995. There is also a possibility of initiating a completely new AsDB project, namely "Regulatory Framework for the Energy Sector" which shall constitute a wider scope activities plan.

LEGAL UPDATE

Law on Partnerships and Companies

Once adopted, the new Law on Partnerships and Companies (which at the beginning of May was still at its second reading) will replace the former Law on Economic Entities. The law on Economic Entities of 1991 allowed for three types of enterprise: sole proprietorships, cooperatives and the companies. It has played a considerable role in the privatization of state-owned enterprises, restructuring them into companies and transferring to the liability system.

The structure of the new law is based on forms of businesses and concepts recognized in civil law system countries. It corrects some definitions and terms that were confused in the previous law: it recognizes "pure" profit making businesses in the form of:

- a) sole proprietorships (to be regulated by separate legislation)
- b) partnerships, and
- c) companies, covered by this law.

There are two types of partnerships - limited and unlimited; and two types of companies - shareholding companies and limited liability companies.

Cooperatives do not fall within the scope of this law.

Registration which previously was done by tax authorities was replaced by registration by a separate agency. The law defines the competence and functions of the board of directors, details provisions on issue of shares and bonds; priority rights of founders, evaluation of assets and other procedures.

Environmental laws

The Constitution of Mongolia provides that citizens ".. are guaranteed to enjoy the right to healthy and safe environment and to be protected against environmental pollution and ecological imbalance". It also sets out the general direction of economic policy with respect to ecology.

The Parliament has passed a package of laws on environmental protection at its Spring 1995 Session. The general law on protection of the environment defines the aims of policy on protection of natural resources and their rational use, regulates and sets forth the establishment of a structure of administration for the protection and use of natural resources, unified system of charges for using natural resources (covered by a separate package of laws), greater input of citizens and public organizations in working out and implementing the policy on environment protection. Subsidiary laws based on principles set out in the general law are the following: water law; soil protection law; plant protection; forestry law; air law; law on toxic chemical substances.

Also, laws on state control, advocacy, copyright, food, government service, land, legal status of foreign citizens, patents, police and social insurance were adopted at the Spring and Fall 1994 Sessions of the State Great Hural.

Amendments to the Law on administrative responsibilities, national parks, land, military service, banking, currency, customs, patent, and the code of civil procedure have been passed.

NEW INITIATIVES

- Programming actions of several donors including the UNDP, other UN agencies and international donor organizations are now being planned. Some are deliberately being synchronized starting from this year.

IBRD: discussions on next Country Assistance Strategy have started on April 25. It is likely to become effective from January 1, 1996, the duration is three years.

EU/Tacis: Discussions on next Country Programme (1997-1998) will most likely start in early 1996.

UNDP: Discussions on next Country Programme (1997-2000) will start early 1996. Review ongoing Country Programme is to start in May 1995 to become the initial input to the process.

UNICEF: Discussions on next Country Programme (1997-2000) will start in July 1995 and shall be finalized by September 1996. The actual review activities have already started.

UNFPA: Discussions on next Country Programme (1997-2000) will start end 1995 and be finalized in mid-1996.

WHO: The next bi-annual programme (1996-1997) is due to be approved by mid- 1995.

- A joint Asian Development Bank (AsDB) and International Development Association (IDA) mission visited Mongolia on February 8-14 to discuss financial sector development and restructuring plans for Mongolia with the Bank of Mongolia and the Ministry of Finance. This was the first formal joint mission of the AsDB and the IDA to Mongolia. The objectives of the mission were to discuss the findings of the January 1995 IDA Report on Financial Sector Development and Restructuring Plans for Mongolia and to formulate an integrated Technical Assistance Action Plan to develop and restructure the banking system. Agreement was reached on a comprehensive Action Plan and on the provision of technical assistance, both advisory services and training, to the Bank of Mongolia, commercial banks, and the Ministry of Justice, subject to approval by the respective management of the AsDB and the IDA. The steps outlined in the Action Plan are prerequisites for the successful development and restructuring of the financial sector of the country. The Bank of Mongolia is assuming responsibility for the effective and timely implementation of the measures outlined, with the support of the AsDB, the IMF and the IDA.
- A technical assistance fact-finding mission of the Asian Development Bank visited Mongolia from 13-22 March 1995 to review a proposal from the State Social Insurance General Office (SSIGO) for strengthening implementation of the national social insurance system. Discussions were held with the SSIGO, the Ministry of Population and Labor, the Ministry of Health, and the UNDP.

Agreement was reached for the AsDB to provide a technical assistance grant for activities aimed at improving the institutional capacity for implementing nationwide compulsory social insurance during 1995-1997. A Memorandum of Understanding summarized the agreement reached.

- A World Bank mission is currently in Ulaanbaatar (April 25- May 10). Among the many discussions the mission participants shall have with the Mongolian Authorities is the Mongolia Country Assistance Strategy (CAS) which is the first CAS since the country joined the Bank in February 1991.
- The USAID and the Government of Mongolia have begun preparations for the implementation of the Economic Policy Support Project (EPSP). The EPSP is a five-year, US \$7.5 million project that responds to the Government's request for US technical assistance and training. The purpose of the project is to provide: 1. technical assistance; 2. carefully targeted training to both the Government and Mongolia's private sector that will establish sound, growth-oriented market economic policies and practices; and to 3. strengthen select public and private sector institutions that will help develop and sustain a market-oriented economy. The EPSP seeks to improve the Government's economic management capacity through the provision of a structured Economic Management Operation Research Center (ORC) attached to the Economic Policy Secretariat (the secretariat), working through the Prime Minister's Office, as well as with the Cabinet Secretariat. Through proposals submitted to the Secretariat, both the Government and the private sector can request long- and short-term technical assistance and/or training to assist them in addressing a variety of policy development and implementation issues.
- A German BMZ (Ministry of Economic Cooperation) Mission is in Ulaanbaatar from April 28 to May 6 to have consultations with the Government on the 1995 Economic Aid Programme. The mission includes representatives of the BMZ, GTZ (Society for Technical Cooperation) and KfW (Bank for Reconstruction).
- The European Union has started two projects for funding.

The Tacis project on Small and Medium Size Enterprise Development has a 20-month duration and a budget of over 2 million ECU. It involves funding for 90 person-months of technical assistance from Europe, and for 300 man-months of local counterparts and support staff. The project headquarters are in the Mongolian Business Development Center (MBDC) who are the local counterpart for the project. It includes the strengthening of the role of the MBDC as an SME Development Agency, and the creation within the MBDC of an AgroProcessing Advisory Center (APAC). Success will help justify a major AsDB loan to Mongolia for the Agroprocessing sector, to demonstrate that the APAC and the MBDC can be reliable in creating business plans. Two aimags shall be identified in which the Tacis SME Development project will establish Regional Business Agencies (RBAs).

The second one is the EU ADA Strengthening of the Management Development Institutions project. It is coordinated under the Management development

institutions strengthening component of the Management Development Programme. Some 20 Mongolians have been chosen to undertake training in business consultancy in Europe, which will be followed by practical consultancy assignments in Mongolia, with 8 participants selected for 10 month courses in Europe in Business Management and Administration. The MBDC is to be the focus of much of this new consultancy activity.

- Following the admission of Mongolia as a member of the International Fund of Agriculture Development (IFAD) in January 1994, the Government of Mongolia requested IFAD to provide assistance for a livestock development project to address a major segment of rural poverty, namely households dependent on extensive livestock husbandry. The IFAD agreed with the Ministry of Food and Agriculture to formulate and implement a US \$5 million project entitled "Arkhangai Livestock Development". A mission comprising of six members was fielded in September last year. The mission came up with a draft formulation report on Arkhangai Livestock Development Project that was presented to the Ministry of Food and Agriculture for distribution to the Arkhangai Governor's Office, Ministry of Finance, the NDB and Ministry of Nature and Environment for their comments.

The objective of the project was defined as to assist the Government of Mongolia in the development of a replicable model for reducing rural poverty and restoring the incomes of the herding community through addressing the imbalances in livestock ownership and reinstating the other necessary support services required to sustain a thriving livestock economy. The objective is to be reached through activities grouped into three main components: livestock production, marketing/small scale enterprises development and institutional strengthening.

The next IFAD mission shall be fielded in June 1995. The details are being discussed between the Ministry and the IFAD.

- The Ministry of Science and Education is preparing the Mid-Decade Review of Progress toward Education for All. This is conducted as a follow-up activity to the Jomtien World Conference on Education for All held in March 1990.
- In June this year, the Ministry of Science and Education will have a coordinating meeting of international projects in education being implemented in the country.

**ANNUAL
REPORT**

1993

**Bank of Mongolia
Ulaanbaatar**

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Foreword

Ladies and Gentlemen,

I am pleased to present the 1993 macroeconomic policy measures undertaken by the Government of Mongolia and the monetary policy conducted by the Bank of Mongolia and their results.

The Bank of Mongolia closely cooperated with the Government in implementing its 1993 monetary policies approved by the State Great Hural (the Parliament). The Bank also concentrated its efforts on implementing the IMF recommendations and the "Stand-by" and "ESAF" arrangements.

The main results of the macroeconomic measures and the monetary policy that were conducted in 1993 have been demonstrated in the following:

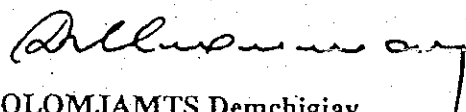
- liberalization of prices and elimination of government subsidies
- adoption of a floating exchange rate
- a dramatic decrease in inflation
- increased exports and decreased imports, creating an environment for an improvement in the balance of payments
- monetary and fiscal policy aimed at the development of the private sector and liberalization of foreign trade
- adjustment and restructuring of the commercial banks to the new market oriented environment and the issuance of new banknotes
- the stabilization of the national currency
- maintenance of positive real lending and deposit interest rate.

As a result of a tight monetary policy directed at setting the lending rate higher than the inflation rate, deposit rate, liberalizing exchange rates, controlling the amount of money in circulation, strengthening supervision over commercial banks, and monitoring their lending, by the end of 1993 the exchange rate stabilized and inflation slowed down impressively.

An amendment of the Banking Law of Mongolia on establishing greater prudential control of the Bank of Mongolia over commercial banks, and the approval of new statutes for the Bank of Mongolia were crucial in improving the legal framework of the banking sector and its overall activities.

The 1993 Annual report of Bank of Mongolia contains some key data and information on the macroeconomic and monetary policy measures and their results.

With best wishes,



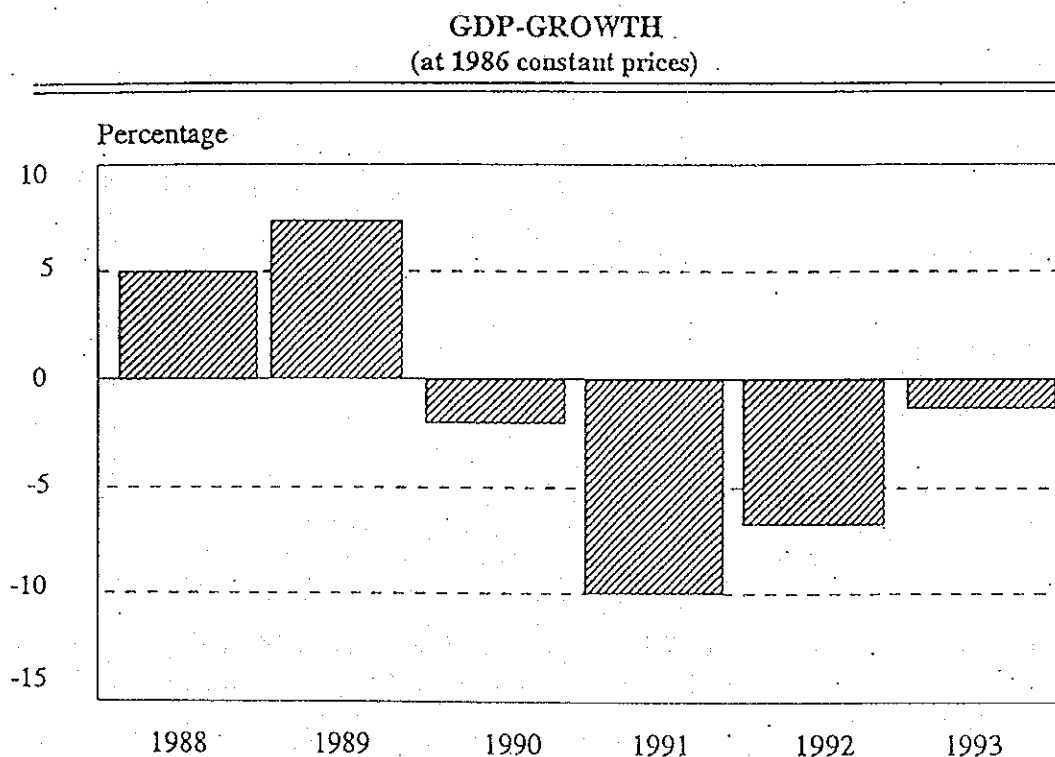
Mr. MOLOMJAMTS Demchigjav
Governor

THE 1993 ECONOMIC SURVEY

I. Economic situation

1993 was an important year for the economic transition of the country. Gross Domestic Product (GDP) fell by an estimated 1.3 percent, a much more moderate decline as compared to previous years (see Fig.1.). Since the middle of the year the productive sectors, agriculture in particular, showed clear signs of revival. The market for agricultural products expanded and the private sector increased its activities. Consequently, 1994 economic policies will aim to encourage this tendency.

Figure 1



Due to bad spring weather agricultural production in western provinces suffered a setback, with the loss of 0.5 million livestock. However, thanks to stockbreeders' efforts to minimize losses in the second half of the year the total number of livestock at year end was 25.2 million, according to preliminary figures. Harvests of wheat and vegetables fell short of the expected amount owing to unfavorable weather conditions and to financial and management difficulties resulting from the privatization of large state cooperatives and farms.

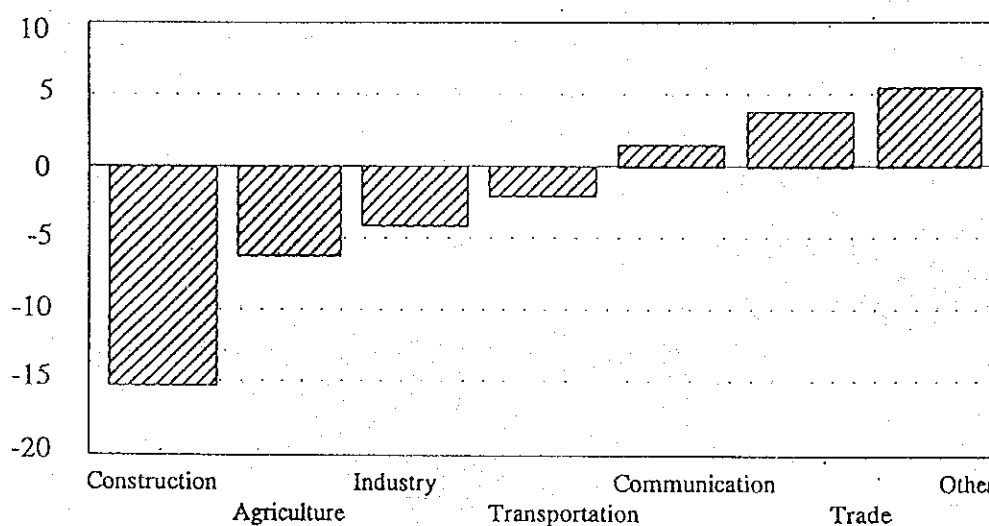
Production in the industrial sector, which accounts for almost half of GDP, fell by an estimated 4.7 percent. In contrast to a further decline in the first half of the year industrial production picked up in the second half as a result of increases in production of copper concentrate and beverages, and the expansion of small private enterprises engaged in the repair of equipment, sewing, hide processing and food. On the other hand, adjustments from older industries to the changing economic environment is hindered by decrepit machinery and lack of spare parts. More specific, the increase in fuel prices also had a negative impact on the demand for energy and, as a

consequence, on industrial production, as well as on the production of energy itself.

A tendency favorable to exports emerged in 1993 and production of such major export items as copper concentrate, cashmere and leather increased. The switch to a floating exchange rate system in May, 1993 had a positive impact on exports and increased the competitiveness of exporters. With regard to the domestic market, the higher input prices led to some loss in selling. The development of GDP by sector is shown in Fig. 2.

Figure 2

GDP-GROWTH BY SECTOR IN 1993
(Percentage change; at 1986 constant prices)



With 4 per cent estimated growth in 1993 trade led all other sectors of the economy. Direct and transit trade with Russia and China accounted for most of it. The number of people involved in trade was increasing throughout the year.

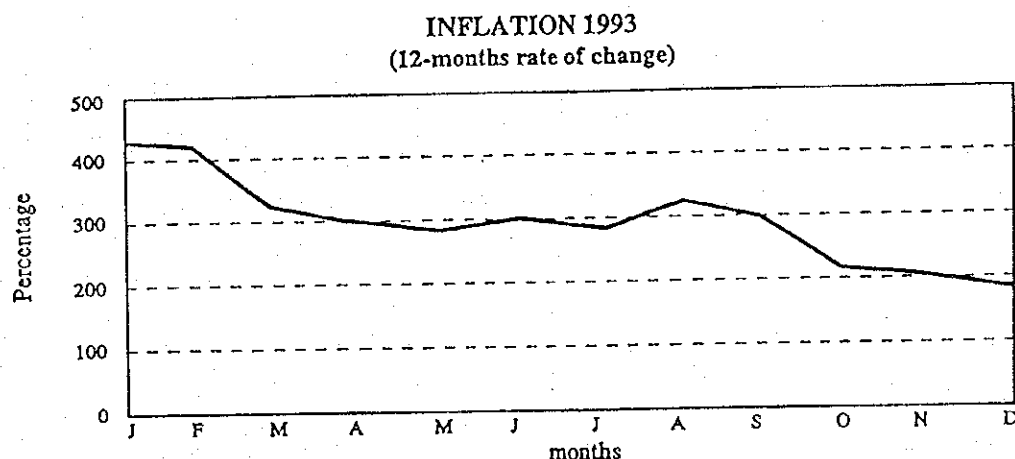
The convenient location of Mongolia in the center of Asia stimulates trade growth. Despite some improvement, the supply of consumer goods in the domestic markets still insufficient; trade easily can fill this gap. The increased activities of trade had spillover effects on the transportation sector, notably on the airline and railway industries. Domestic transportation on the other hand is still not able to fully meet increasing demand due to the poor supply of vehicles and obsolete equipment.

As a result of sharp decreases in state budgetary investments the construction sector remains in recession.

II. PRICES

In 1993 the spiralling inflation was brought under control. The inflation rate decreased to 183 percent in 1993 from 321 percent in 1992 (See Fig.3).

Figure 3.



In the beginning of the year inflation even tipped 420 percent. The average monthly rate of inflation fell from 9 percent during the first half of the year to 5 percent in the second half of 1993. Despite this decline, the year was marked by several sharp price rises. In January the official exchange rate of the Togrog was lowered from Tog 40 to Tog 150 per US\$. At the end of May the Togrog exchange rate was made convertible and consequently the exchange rate fell to Tog. 400 to the US\$. As a result of these measures import prices were pushed up, which in its turn had an upward pressure on consumer prices. In June the price increase was very substantial due to the fact that not only depreciation effects pushed prices up but also because of sharp increases in housing rents (including energy, hot water and heating), gasoline prices and transportation fares. In August the last major increase of consumer prices occurred. In that month the ration system for key foodstuffs was abolished. However, it was the merit of the Bank of Mongolia that through its tight monetary policy the "price shocks" for a large part could be absorbed and the monthly inflation rates steadily decreased. After the initial Togrog depreciation in May, the exchange rate stabilized and even appreciated by 10 % during the rest of 1993.

By the end of the year almost all prices had been liberalized and subsidies abolished. In combination with a free floating exchange rate and a continued prudent monetary policy, a further fall of the inflation rate in 1994 can be expected.

III. EXTERNAL POSITION

For the first time in many years, in 1993 Mongolia's trade balance was roughly in equilibrium. Total exports amounted to US\$ 360.9 mln as against US\$ 388.5 mln in 1992. Total imports amounted to US\$ 361.5 mln, which is US\$ 56.8 mln lower than last year's import value of US\$ 418.3 mln. Exports of copper concentrate, Mongolia's main export product, reached a value of around US\$ 150.2 mln as against US\$ 160.2 mln in 1992. This decrease can be primarily attributed to a decline in copper prices --these reached a lowest point in 1993-- , which more than offset an increase in export volumes. The results for other important export goods (cashmere, leather goods, skins and meat) were mixed. Mainly due to the depreciation of the exchange rate, import values were substantially lower than in 1992. Currency effects especially had an great impact on the imports of

capital goods.

In 1993 the Russian Federation and China remained Mongolia's main trading partners (Fig. 4 and 5). Nevertheless, the relative importance of the two countries underwent a major change. This change was particularly substantial as far as exports were concerned. Exports to Russia, expressed as a percentage of total exports, were down from 57.2 percent in 1992 to 37.5 percent in the year under review. Exports to China were up from 16.8 percent to 30.9 percent. Total exports to G-7 countries declined slightly. With a share of 59.7 percent of total imports (up from 52.4 percent in 1992), Russia remained by far the most important supplier of commodities to Mongolia. On a far distance China followed with 16.8 percent (12.2 percent in 1992). The share of the G-7 countries declined from 18.3 percent to 13.6 percent. Mainly due to considerably lower exports, Mongolia recorded a trade deficit with Russia of around US\$ 80 mln (almost equilibrium in 1992). The trade surplus with China grew substantially to more than US\$ 50 mln.

In 1993 foreign exchange deposits held with banks increased by almost US\$ 8.5 mln. From this increase it can be derived, not only that trade has become a rather important activity in the Mongolian economy, but also that banks to a higher degree are used as intermediaries in the settlement of international trade transactions.

Figure 4

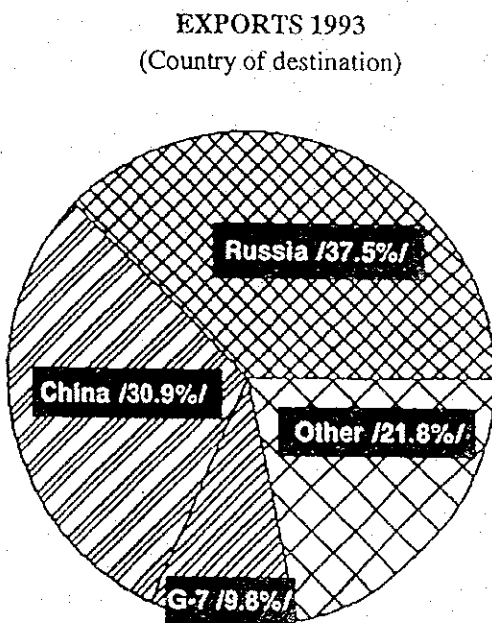
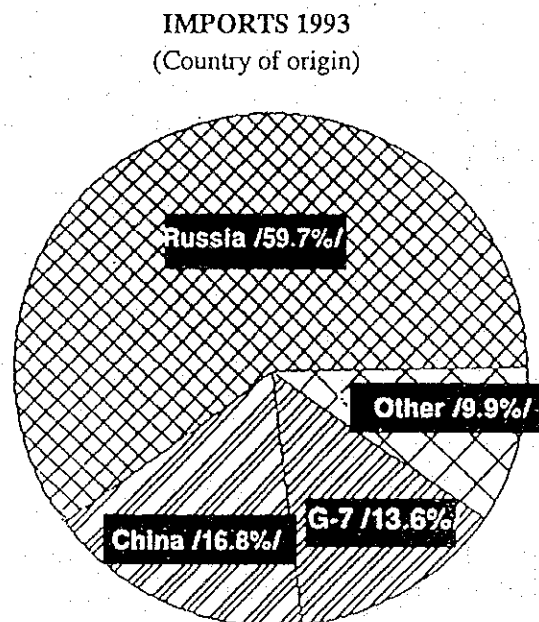


Figure 5



The service balance showed a deficit of US\$ 37.8 mln. Together with (net) transfers amounting to US\$ 90.9 mln, this resulted in a deficit on the current account of US\$ 52.5 mln, or around 8.5 percent of GDP. Despite delays in the disbursement of grants and loans, an overall balance

of payments surplus of US\$ 39.3 mln was registered.

Table 1.
(in millions of US\$)

Balance of Payments

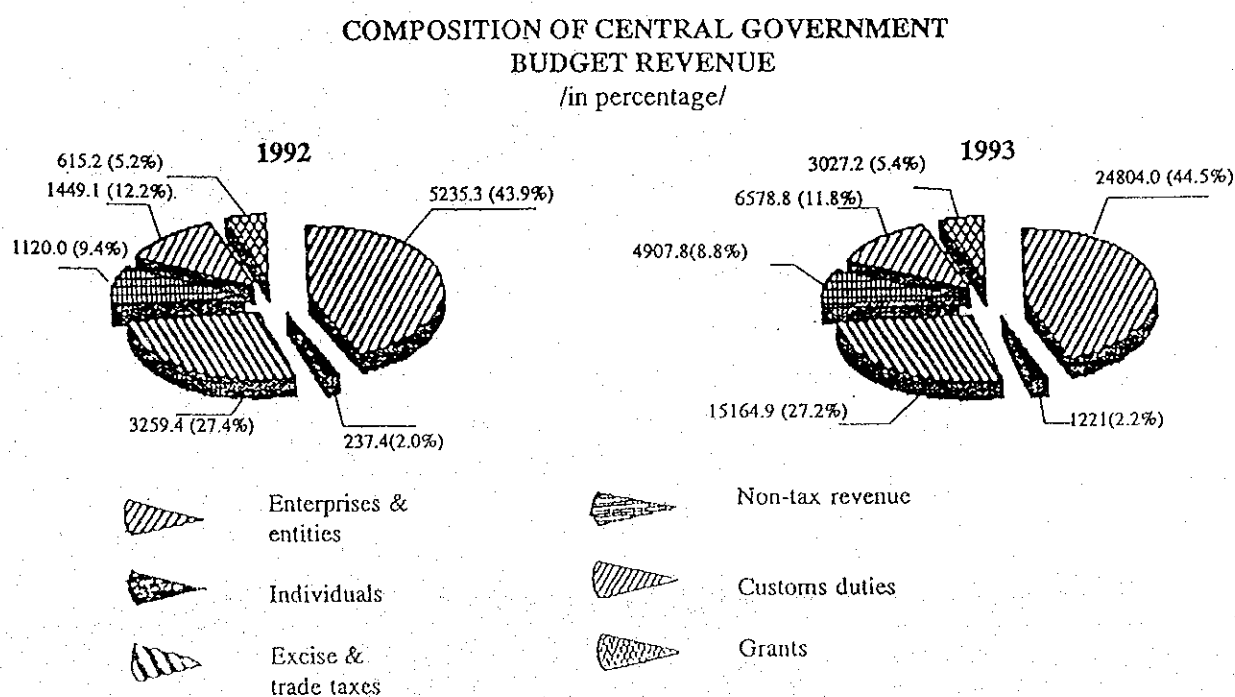
		1992	1993
1.	TRADE BALANCE	- 29.8	- 0.6
	Exports	388.5	360.9
	of which copper	160.2	150.2
	Imports	- 418.3	- 361.5
2.	SERVICE BALANCE	- 25.4	- 37.8
3.	TRANSFERS (NET)	35.8	90.9
4.	CURRENT ACCOUNT (1 TO 3)	- 19.4	52.5
5.	CAPITAL ACCOUNT	30.7	- 17.9
6.	ERRORS AND OMISSIONS	- 9.5	4.7
7.	OVERALL BALANCE (4 TO 6)	1.8	39.3

Source: Ministry of Finance, Ministry of Trade and Industry

IV. PUBLIC FINANCE

In 1993 fiscal and monetary policies were synchronized in the sense that the monetary authorities pursued a policy aimed at curtailing domestic demand in order to ensure a smooth transition towards a market economy.

Figure 6



During the year the government took decisive actions to increase tax collection, including, inter alia, new corporate income taxes, copper tax and sales taxes on domestic and imported goods. Direct taxes, notably taxes from enterprises, and turnover taxes constituted respectively 47 percent and 27 percent of total revenues.

Figure 7

COMPOSITION OF CENTRAL GOVERNMENT
BUDGET EXPENDITURE
/in percentage/

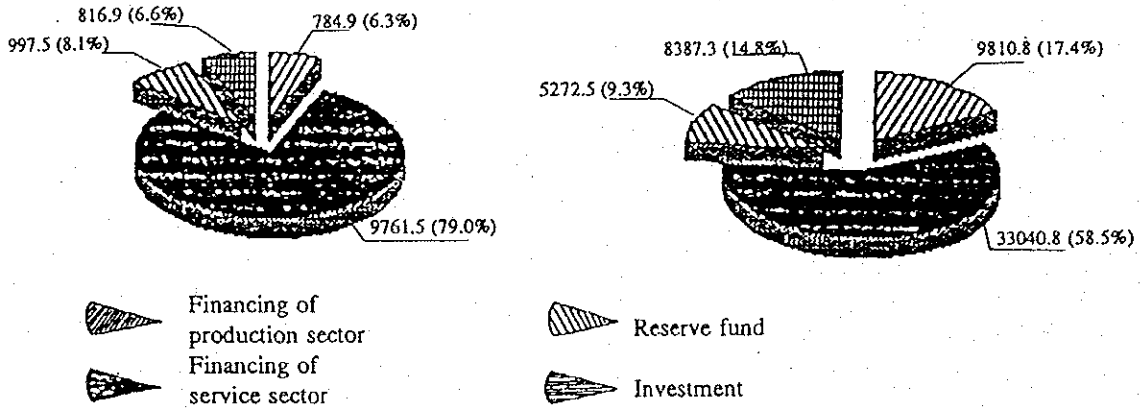
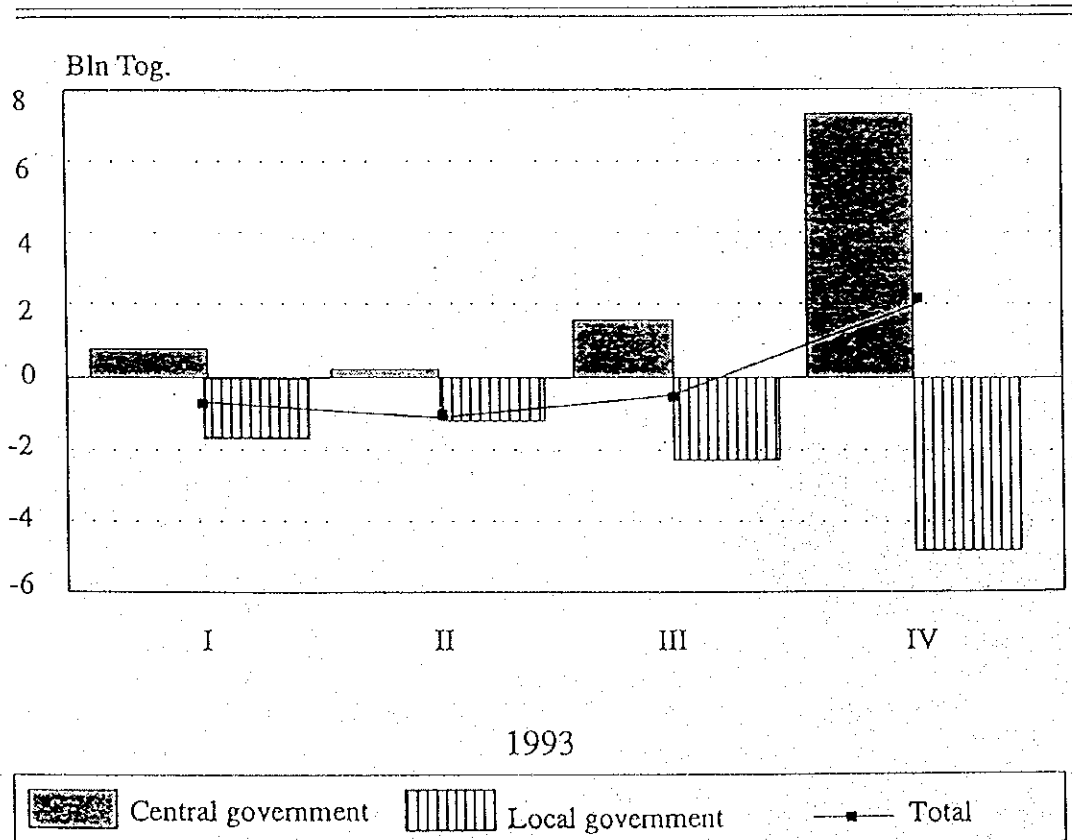
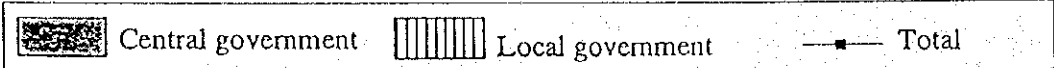


Figure 8

GOVERNMENT FINANCE 1993
(in billion Togrog)



1993



In the budget total current revenues are estimated to amount to Tog. 55.7 bln, and current expenditures to Tog. 56.5 bln. This results in a current deficit of Tog. 807.1 mln or 2.1 percent of GDP, which has been mainly financed from external sources. Compared with the previous year, budget revenues increased over 4.7 times; revenues from customs duties increased by 4.5 times; corporate and individual income tax revenues by 4.7 times and sales taxes by 4.6 times.

78.6 percent of budget revenues were retained in the budget since the major export-oriented enterprises are linked with the budget and proceeds from sales tax and customs duties on imported goods are directly channeled to the central budget. The budget balance deficit was partially caused by the fact that a total of Tog. 6.33 bln in taxes were not paid in time.

Compared with the previous year budget expenditures increased by 4.6 times in 1993, including increases in expenditure of non-production sector and investments by 3.4 times and 10.3 times respectively.

In the economic transition period a substantial part of the investment funds were spent on specific projects that were aimed at stabilization of production, infrastructure development and export resource development.

BRIEF CHRONICLE OF POLICY AND TECHNICAL MEASURES UNDERTAKEN BY THE BANK OF MONGOLIA

JANUARY

Deliberations and approval by the State Great Hural of the state monetary policy to be pursued by the Bank of Mongolia in 1993.

Fixing of the ceiling of commercial bank lending to economic entities in the first quarter at Tog 24.0 bln.

FEBRUARY

Fixing, in compliance with the Banking Law, of the minimum interest rate on short-term personal time and savings deposits to be paid by commercial banks at 5 percent per month or 79.5 percent per annum.

Establishing of the following financial performance criteria of commercial banks:

- the minimum share of the equity in total assets at 10 percent,
- the minimum share of liquid assets in deposits at 10 percent,
- the ratio of loans to deposits to be less than 100 percent,
- the ratio of equity to deposits to be less than 30 percent,
- the ceiling on the amount of loan per debtor not to exceed 20 percent of equity.

MARCH

Raising of the monthly interest rate on the Bank's clearing loans to commercial banks from 15 - 20 percent to 18 - 25 percent, effective from March 1.

Adoption by the Bank of Mongolia of the methodology of defining doubtful and bad loans. Under these regulations commercial banks are supposed to establish a new "provision fund".

Adoption by the Bank of Mongolia of "Sample regulations for supervision of affiliated banks of the Bank of Mongolia in central and local bank districts" and "General guidelines for supervision of commercial banks".

APRIL

Fixing of the ceiling of commercial bank lending to economic entities in the second quarter at Tog 26.0 bln.

Introduction of amendments to the procedure of extending credits by the Bank of Mongolia to commercial banks, whereby the maturity of credits extended to commercial banks through clearing settlement was changed to 14 days (previously 7 days), and that of high - interest credits to 7 days (previously 4 days).

MAY

Deliberations and approval by the State Great Hural of the Statute of Bank of Mongolia.

Adoption of "Regulations for accounting of bills of exchange and promissory notes".

Transition to the floating foreign exchange regime.

Joint approval by the Governor of the Bank of Mongolia and the Minister of Finance of "Procedure for regulation of foreign currency transactions".

Fixing of the minimum interest rate on short - term personal time and savings deposit to be paid by commercial banks at 7 percent per month or 125 percent per annum.

Issuance of a new Tog 500 denomination banknote by the Bank of Mongolia.

JUNE

Adoption by the Bank of Mongolia of "Sample procedure of opening and conducting transactions with current accounts".

Increase of the domestic price for gold, and fixing of the price of 1 gram gold with 999.9 standard at Tog 4,300 - 4,800, and that of 1 gram of silver with 999.9 standard at Tog 47 - 64 depending on the purchase or selling price thereof.

Adoption by the Bank of Mongolia of "Statute of interbank convertible currency market".

JULY

Adoption by the Bank of Mongolia of "Regulations for supervision and registration of legal documents issued by commercial banks".

Fixing of the ceiling of commercial bank lending to economic entities in the third quarter at Tog 30.7 bln. Introduction of a system of penalties and incentives in case of excess or deficiency of the bank's individuals credit limit.

Extension of the maturity of the Bank's preferential one - year credit by four months. Uplifting of the lending rate for the first two months from 5 percent to 12 percent, and for the subsequent months to 15 percent.

AUGUST

Adoption by the Bank of Mongolia of "Regulations for establishing a commercial bank and opening and operations of its branches".

Fixing of unified minimum required reserve ratio of commercial banks at 12 percent on all types of deposits (excluding foreign exchange deposits). Previously, the ratio was fixed differentially depending on the type of deposit with the average rate of 17 percent. In estimating the required reserve amount, the average balance throughout the month is taken now as a base, instead of the balance taken by the last day of the month.

SEPTEMBER

In order to enhance the efficiency of monetary policy the ceiling on commercial bank lending to economic entities in the fourth quarter was fixed on a monthly basis: at Tog 36.0 bln in October, Tog 34.0 bln in November, and Tog 32.7 bln in December. Also the amount of penalty imposed on banks for exceeding the ceiling on lending was increased.

Adoption of "Regulations for payment and settlement documentation and brief and detailed bookkeeping".

OCTOBER

Fixing of the maximum spread between foreign currency buying and selling rates of commercial banks at 8 percent.

Issuing of a new Tog 1000 denominations banknotes by the Bank of Mongolia.

Issuance of the first central bank bills to regulate money supply.

NOVEMBER

Deliberations and approval by the State Great Hural of amendments to the "Banking Law".

Under these amendments duties and rights of the bank supervision unit were strengthened. Another major change was the increase of the minimum amount of paid-up capital of banks from Tog 50.0 mln to 400.0 mln, effective January 1, 1995.

DECEMBER

Deliberations at the State Great Hural of the monetary policy guidelines for 1994. Doubling of the purchase price of gold nugget from gold mines.

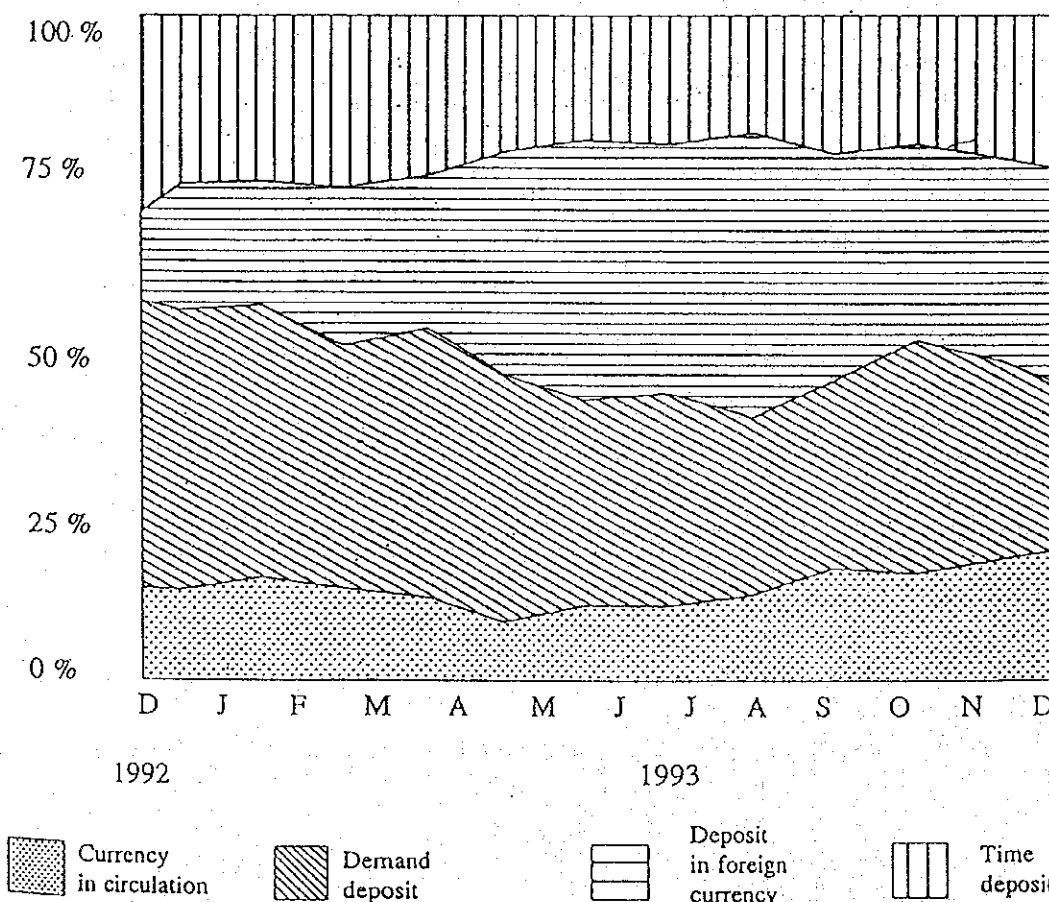
MONETARY AND CREDIT POLICY IN 1993

The major objective of the Bank of Mongolia in 1993 was to restrict inflation, to speed up the circulation of money and to stabilize Togrog's purchasing power through carrying out an efficient monetary and credit policy in compliance with the need to stabilize the economy and to deepen the process of transition towards a market economy. With this objective in view, along with furthering the tight monetary and credit policy launched since the end of 1992, several policy measures were undertaken.

The interest rate policy was aimed at fixing the lending rates above the inflation rate, narrowing the spread between lending and deposit rates, and protecting personal savings deposits at banks from depreciation. The Bank of Mongolia monthly interest rate on credits to commercial banks was increased to 10-25 percent and was maintained at that level throughout the year.

Figure 9

COMPOSITION MONEY SUPPLY M2
/In percentage of M2/



In accordance with the provision of the Banking Law the minimum deposit rates were increased twice during 1993. Effective from June 1, 1993, the minimum interest rate on short-term personal time and savings deposits at commercial banks was fixed at 7 percent per month. As a result of increasing the minimum deposit rate and the introduction of new types of deposits by commercial banks the total amount of personal savings deposits increased to Tog 10.3 bln, which is 3.3 times over the last year's amount (see Fig. 9).

A. RESERVE REQUIREMENT

The unified required reserve ratio, which is an important instrument for regulating the monetary base and ultimately the money supply, was fixed on all types of deposits (except foreign currency deposits), effective from August 1993. The former procedure of including the current account balances placed with commercial banks by other commercial banks into required reserve has been changed. As a result of recording the required reserves by each bank and implementing a system of penalties and incentives in the second half of 1993, a total of Tog 86.0 mln in incentives were paid out and Tog 91.0 mln in penalties were charged. At present a rate of 12 % as a reserve requirement is in force. By the end of the year all commercial banks met the reserve requirement and held an amount of Tog 0.5 bln in excess reserves.

B. CENTRAL BANK CREDIT TO COMMERCIAL BANKS

During the past year interest policy conducted by Bank of Mongolia was crucial in implementing monetary policy and regulating the money supply in the economy. The Bank of Mongolia influenced the total amount of money in circulation through fixing the interest rate on its own credits in accordance with consumer price development.

In 1993 monthly interest rates on the Bank of Mongolia credits on each type of credit to commercial banks were the following: credits for seasonal measures 4-10 percent, ordinary interest bearing clearing credits 18 percent, and high interest bearing clearing credits 25 percent. Upon assessment of the types of central bank credits to commercial banks, credits extended for supply of cash to commercial banks were abolished, effective from September 1993. This was a significant measure to reinforce control over the lending operations of commercial banks.

Pre-clearing loans in the amount of Tog 3.5 bln were repaid entirely by commercial banks within 1993. Decisive measures were undertaken to eliminate the wide spread practice of some commercial banks which formerly could get clearing credits from the Bank of Mongolia for deficiencies between resources and credit lending.

The total volume of outstanding debts from credits extended by the Bank of Mongolia to commercial banks was Tog 5,673.3 mln as of December 31, 1993.

(a) credits for seasonal needs	Tog 1335.0 mln
(b) ordinary interest bearing clearing credit	Tog 804.2 mln
(c) high interest bearing clearing credit	Tog 656.1 mln
(d) principal in arrears	Tog 2683.5 mln
(e) interest in arrears	Tog 158.5 mln

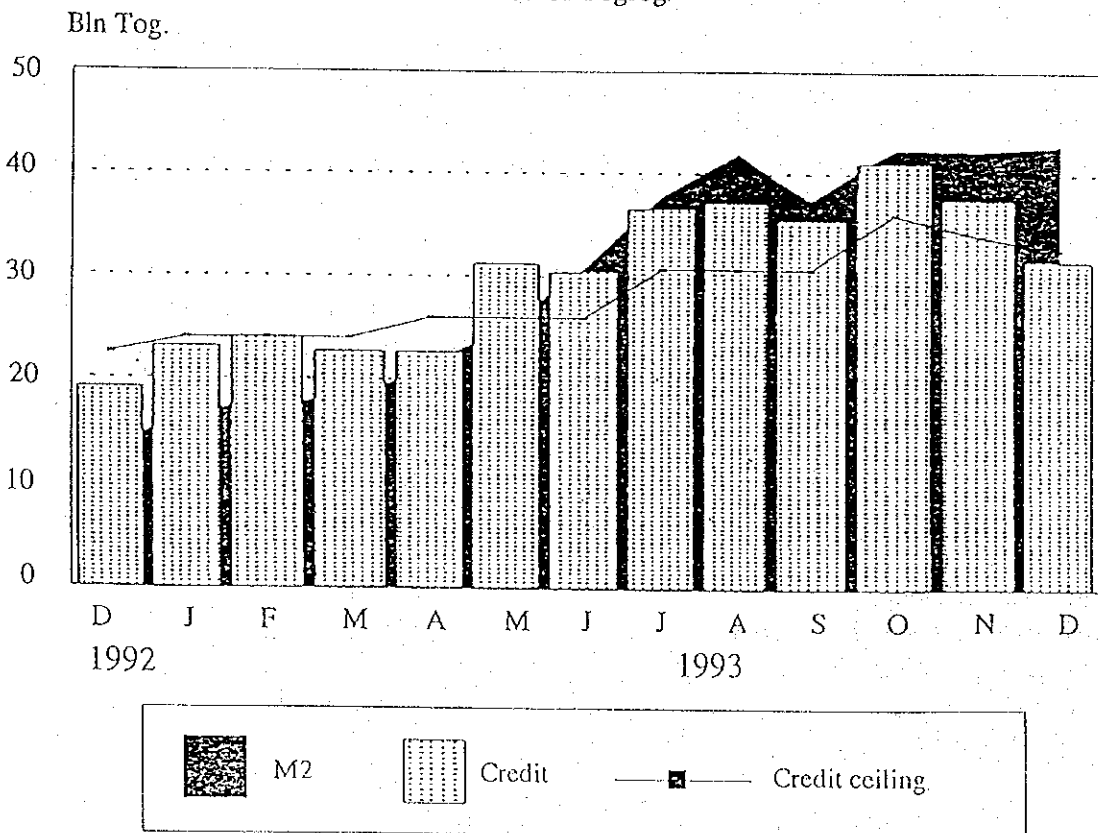
The volume of credits extended by the Bank of Mongolia to commercial banks increased by Tog 485 mln against the previous year. However, its growth rate lagged well behind the aggregate money supply growth rate, which rose 3.3 times in 1993.

C. DIRECT AND INDIRECT MONETARY INSTRUMENTS

Starting from October 1992 the Bank of Mongolia has set a limit on the amount of outstanding credits for each commercial bank by the end of each quarter, thus having direct control over total credit lending and repayments (Fig. 10). This measure was important in terms of ensuring the implementation of the obligations in the area of money and credit growth as outlined in the ESAF program, which was agreed upon with the International Monetary Fund in 1993. In order to absorb excess liquidity of commercial banks, the Bank of Mongolia sold to commercial banks starting from November 1993 the first batch of so called central bank bills in the amount of Tog 1.0 bln which is carried an interest rate of 10 percent per month and had a maturity of 3 months. Appropriate preparatory work is being carried out to launch the trading of central bank bills by the commercial banks in the secondary market starting from the second half of 1994. In view of the introduction of further monetary instruments to control the money supply, the Bank of Mongolia has worked out regulations for purchasing bills of exchange and promissory notes. Moreover, the Bank of Mongolia is investigating possibilities to provide credits for commercial banks not any longer through clearing loans, but through a new refinancing facility. By means of the above measures, Bank of Mongolia will be enabled to rely more on indirect instruments for conducting monetary policy.

Figure 10

M2, CREDIT AND CREDIT CEILING
/In billion of Togrög/



D. ACCOUNTING, CLEARING AND SETTLEMENT SYSTEM

Upon the implementation of the "Accounting Law of Mongolia", approved by the State Great Hural of Mongolia : the regulations on consolidated chart of accounts, fixed assets, bills, loan losses, bank accounting and others were amended to make them consistent with market economy requirements, effective from the beginning of 1994. The new chart of accounts that reflects the multiple forms of ownership and can be used in the prospective automated accounting procedure, replaced the previous account plan classified mainly by ministries and special boards.

In order to ensure efficient interbank settlements, the clearing settlement procedures were amended 3 times, whereby, inter alia, in major cities and aimags interbank clearing settlements are conducted twice a day.

" A National Payment Council" was set up in March 1993 with the objective of defining the general policy and guidelines related to the payment settlement system.

Taking into account the need for speeding up interbank settlements, a foundation was laid out to establish an interbank electronic network. Starting from March 1993 an electronic network is being used within the Bank of Mongolia .

The commissioning of the electronic system, along with speeding up the settlements within the national economy, will probably reduce the demand for cash and will have a positive impact on the financial capability of economic entities through accelerated asset turnover.

When software problems are solved, the reliability of information and the security of the system has improved, and service fees been introduced, it can be expected that starting from the second half of 1994 the aimag and city branches of commercial banks will be connected to the unified network gradually.

E. FOREIGN EXCHANGE POLICY

The Bank of Mongolia maintains corresponding relations with 37 banks in 11 countries and coordinates and organizes the management of state international reserves.

As a state central bank the Bank of Mongolia manages the state international reserves and focuses on their efficient placement in overseas central and leading commercial banks, and carries out foreign settlement on behalf of the government.

Cooperation with the International Monetary Fund , World Bank and Asian Development Bank is being developed, and with their assistance measures are being undertaken to improve the two-tier banking system.

The International Monetary Fund approved the ESAF program for a 3 year term in June 1993, under which the IMF is rendering financial assistance aimed at making structural changes in the Mongolian economy. The performance criteria for the end of the year agreed upon with the Fund have been implemented.

Cooperation with the Asian Development Bank was expanded further in 1993. The loan extended for improving the balance of payments was disbursed, and the industrial sector program loan is being disbursed. The loans are available to finance the Ulaanbaatar airport expansion in the amount of US\$ 39 mln and employment generation in the amount of US\$ 3 mln. By the end of the year 10 technical assistance projects totalling US\$ 4.5 mln have started to be implemented.

Discussions were held and preparatory work is underway to disburse a US\$ 20 mln loan from the World Bank to support the transition of Mongolia to a market economy.

Within the past year the Bank of Mongolia has undertaken policy measures aimed at building up the international reserves, stabilizing the exchange rate and transition to the floating exchange rate regime.

May 1993 marked the transition to the floating exchange rate between foreign currencies and togrog, whereby the exchange rates are fixed on the basis of interbank trading in accordance with supply and demand in the foreign exchange market.

Transition to the floating exchange rate regime had a favorable impact on supporting domestic exporters, restricting inefficient import and improving the balance of payments.

Considerable time has passed since the beginning of operation of the interbank foreign exchange market, through which the exchange rate is determined. This enabled the Bank of Mongolia to increase experience and to announce more frequently the exchange rate.

By pursuing a tight monetary policy within the overall state macroeconomic policy aimed at stabilizing the economy the Togrog rate is being stabilized. The Bank of Mongolia has resorted to foreign currency intervention in the interbank market when it deemed necessary. Since May 1993 the exchange rate of Togrog to US\$ was maintained at the approximate level of Tog 380-400.

As of December 31, 1993, within the banking system the net international reserves reached a level of US\$ 58.4 mln, of which net international reserves of the Bank of Mongolia were US\$ 25.2 mln, and nearly 70 percent were in US \$ and 30 percent in other currencies.

F. BANK SUPERVISION

Criteria for defining the solvency of commercial banks together with the relevant methodology were approved and became effective in February 1993. In compliance with "Sample instructions for supervision of affiliated banks of the Bank of Mongolia in central and local districts" and "General guidelines for supervision of commercial banks" adopted by the Bank of Mongolia all branches and commercial banks were supervised and instructed on the future work.

Regulations to classify loans, which account for the prevailing part of assets of commercial banks, by their qualitative indicators into substandard, doubtful and bad loans, were passed in May 1993. Work is underway to apply these regulations within the banking system, and measures have been undertaken to establish a provision fund to compensate for doubtful and bad loans.

G. LOANS EXTENDED BY COMMERCIAL BANKS TO ECONOMIC ENTITIES AND INDIVIDUALS

In 1993, the 15 commercial banks extended togrog loans totaling Tog 89.1 bln to economic entities, institutions and individuals. During the year 95.5 percent or Tog 85.2 bln of these credits were repaid and at the end of the year Tog 32.9 bln was outstanding.

Of total credit lending the main part was extended by the Investment and Technological Innovation Bank (36.1 percent of total loans), Ardyn Bank (17.4 percent), Agricultural Bank (14.5 percent), Mongoldaatgal Bank (12.1 percent), with the following sector breakdown: trade (31.8 percent of total loans), industry (23.5 percent), communications and transport (16.7 percent).

Also the changed exchange rate of togrog to convertible currencies, and increased prices for materials, raw materials and service fees due to complete liberalization of commodity prices contributed substantially to the increased outstanding debt.

Input, spare parts and power supply interruptions, equipment breakdown, financing source shortages in all industries and services, as well as increased intra-public sector arrears led to a drop in production and slowdown of capital turnover. These factors contributed to the emergence of inter-enterprises arrears.

H. SUPPLY OF BANKNOTES

To fulfil the increased demand for cash due to the transition to liberalized prices was one of the major problems to be encountered in the first half of 1993. This problem was solved with the issuance of new banknotes in May 1993.

As of December 31, 1992 the total amount of currency in circulation amounted to Tog 2.9 bln. At the end of 1993 currency reached a level of Tog 10.8 bln. This is an increase of 3.7 times with the average quarterly growth rate of 36.1 percent.

By the end of 1993 out of Tog 10.8 bln in circulation, 19 percent or Tog 2.0 bln were held by commercial banks, with the remaining 81 percent or Tog 8.8 bln held outside the banking system. The constantly increasing volume of currency outside the banks is accounted for by an expansion of transactions in cash. However, this situation is also related to the practice of some economic entities to refrain from depositing cash into their accounts held with banks in order to evade tax payments, and inappropriate actions of commercial banks to collect cash.

Because of a shortage of goods in rural areas, currency delivered by the Bank of Mongolia in these areas returned after a few days to Ulaanbaatar and to other major cities where more goods are available. The above mentioned circumstances lead to a slowdown of money velocity: from 22.3 in 1991, to 18.9 in 1992 and 13 in the past year.

I. LEGAL ISSUES

In 1993 amendments were introduced to the Banking Law and the Statute of the Bank of Mongolia. As a result the supervisory power of the Bank of Mongolia was enhanced, the required

reserve structure optimized, the minimum amount of paid-up capital of commercial banks increased to Tog 400 mln and conditions for structural changes of the banking sector been established.

Drafts of "Law on a state treasury fund" and "Law on credit, settlement and deposit" were submitted to the State Great Hural. Promulgation of these laws will enable Bank of Mongolia to improve the legal basis for regulating credit, settlement and deposit relations.

Appendix 1

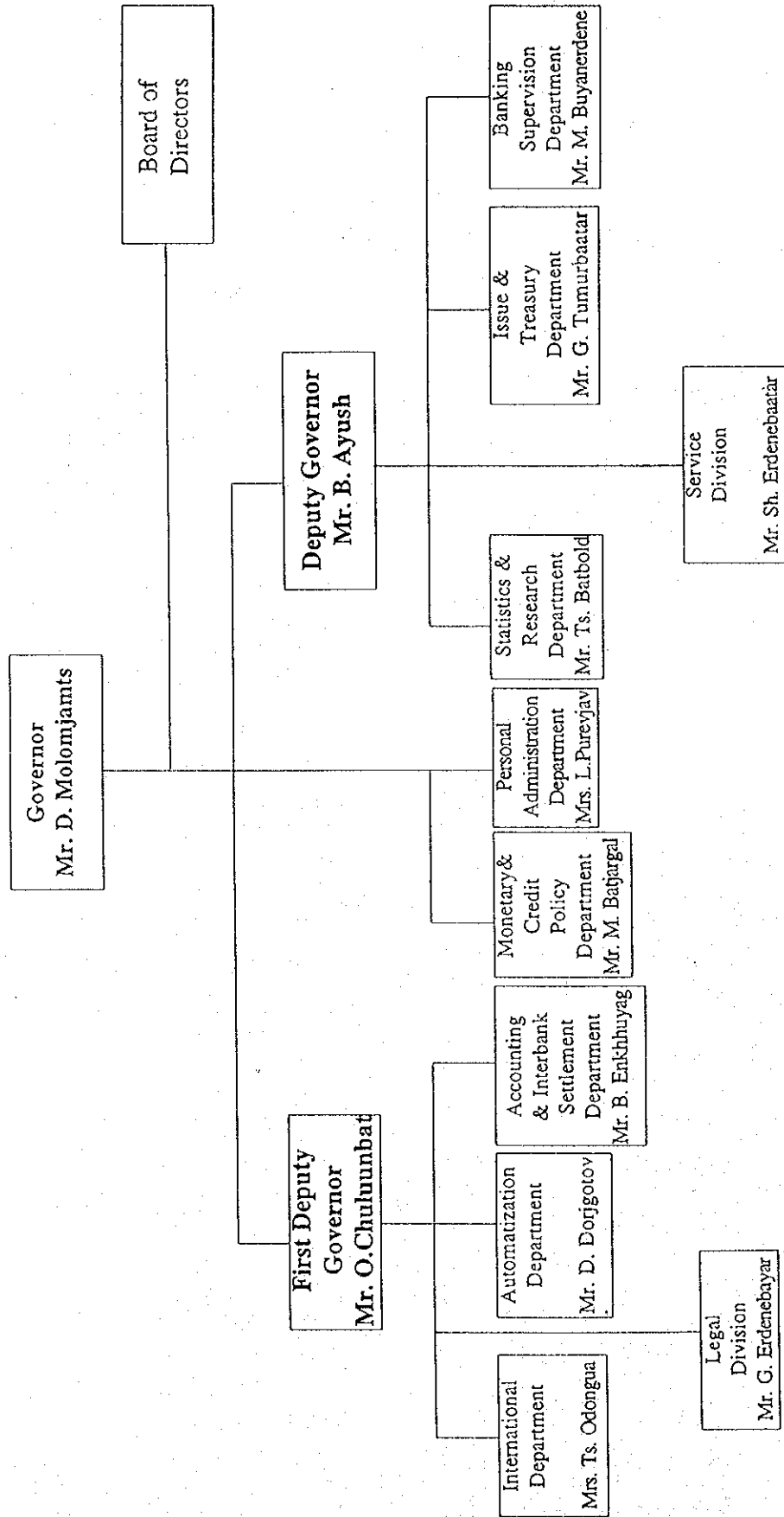
MONGOLIAN BANKING SYSTEM

		1	2	3	4	
Bank of Mongolia (the Central Bank)	Commercial banks	Central Asia bank	4	-	-	-
		Bayan Bogd bank	-	-	-	-
		Ulaanbaatar bank	1	-	-	-
		Agricultural bank	22	338	8	1
		Auto road bank	10	-	-	-
		Bank of Investment & Technological Innovation	38	35	-	-
		People's bank	22	37	51	2
		Trade & Development bank	2	-	-	-
		Mongol Daatgal bank	22	8	10	1
		Industrial bank	-	1	1	-
		Mongol Khorshoo bank	7	-	-	-
		Selenge bank	2	-	-	-
		Mongol Shuudan bank	-	-	-	-
		Mongol business bank	-	-	-	-
		Edyin tenger bank	-	-	-	-

- 1 - Branch
- 2 - Sub. branch
- 3 - Saving branch
- 4 - Exchange currency

Appendix 2

ORGANIZATION CHART OF THE BANK OF MONGOLIA



APPENDIX 4

MONEY SUPPLY

(in millions of togrog)	1993													
	1991		1992											
	12/31	12/31	01/31	02/28	03/31	04/30	05/31	06/30	07/31	08/31	09/30	10/31	11/30	12/31
Currency in Circulation (monthly % changes)	2003.0	2896.4	2798.9	3260.3	3372.1	3276.2	3353.7	4065.1	5026.9	6413.3	7585.1	8466.9	9524.4	10786.1
Commercial Bank's Cash	308.7	1057.2	530.5	532.2	859.4	592.6	1108.2	550.0	721.5	943.9	1183.7	1500.6	1713.9	2035.5
Currency Outside Banks (monthly % changes)	1694.3	1839.2	2268.4	2728.1	2512.7	2683.6	2245.5	3515.1	4305.4	5469.4	6401.4	6966.3	7810.5	8750.6
Money (M1) (monthly % changes)	7313.7	7640.2	9312.4	9955.3	9100.0	11292.4	11532.4	12941.3	16318.4	16546.7	16876.7	21683.5	20349.0	18548.4
Currency Outside Banks	1694.3	1839.2	2268.4	2728.1	2512.7	2683.6	2245.5	3515.1	4305.4	5469.4	6401.4	6966.3	7810.5	8750.6
Private Sector Demand Deposits (BoM)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public Sector Demand Deposits (BoM)	27.3	11.2	14.5	13.8	161.1	176.6	59.3	62.7	64.2	64.1	63.8	15.5	39.0	40.6
Demand Deposits: (Commercial Banks)	5592.1	5789.8	7029.5	7213.4	6426.2	8432.2	9227.6	9363.5	11948.8	11013.2	10411.5	14701.7	12499.5	9757.2
Quasi Money (monthly % changes)	2601.1	5412.1	7406.2	7686.4	9038.3	10049.2	13665.5	17736.7	20726.3	23265.4	20479.8	20707.7	21902.5	24215.8
Time Deposits	1996.9	4430.2	4242.1	4404.8	4696.1	5135.1	5168.2	5735.2	7323.5	7350.7	7737.3	8182.3	9072.2	10103.1
Individuals	1553.3	2985.7	2857.5	2913.4	3105.5	3423.0	3551.4	4008.2	4552.4	4819.3	5368.9	5763.8	6397.6	7969.6
Enterprises	443.6	1444.5	1384.6	1491.4	1590.6	1712.1	1616.8	1727.0	2771.1	2531.4	2368.4	2418.5	2674.6	2133.5
Foreign Currency Deposits	604.2	981.9	3164.1	3281.6	4342.2	4914.1	8497.3	12001.5	13402.8	15914.7	12742.5	12525.4	12830.3	14112.7
Money (M2) (M1+Quasi Money) (monthly changes)	9914.8	13052.3	16718.6	17641.7	18138.3	21341.6	25197.9	30678.0	37044.7	39812.1	37356.5	42391.2	42251.5	42764.2
			28.1	5.5	2.8	17.7	18.1	21.7	20.8	7.5	-6.2	13.5	-0.3	1.2

(Source: BoM, STD)

MONETARY SURVEY

A S S E T S	12/31/91	12/31/92	1/31/93	2/28/93	3/31/93	4/30/93	5/31/93	6/30/93	7/31/93	8/31/93	9/30/93	10/31/93	11/30/93	12/31/93
Foreign Assets (Net)	495.4	-13.1	2616.3	2669.4	5524.1	7706.7	18579.3	25891.6	23552.0	28182.6	24997.6	15530.7	17136.3	23395.7
Domestic Credit	10971.2	16078.2	19620.5	20842.5	17960.7	22979.2	26118.4	34160.4	31958.0	32752.6	29947.7	35690.1	32302.9	24460.3
Claims on Central Government (Net)	-1883.7	-3051.7	-3528.3	-3274.7	-4692.3	-4626.5	-5121.4	3721.7	-4539.3	-4226.8	-5420.3	-5356.9	-5110.2	-7143.4
Claims on NonFinancial Public Enterprises	9779.6	12204.2	15217.5	15437.5	13264.9	16493.4	19904.1	19690.8	24562.5	24828.3	24466.8	29015.5	26219.7	21744.4
Claims on Private Sector	3075.3	6925.7	7991.3	8679.7	9388.1	11112.3	11335.7	10747.9	11934.8	12151.1	10901.2	12030.9	11193.4	9859.3
L I A B I L I T I E S	12/31/91	12/31/92	1/31/93	2/28/93	3/31/93	4/30/93	5/31/93	6/30/93	7/31/93	8/31/93	9/30/93	10/31/93	11/30/93	12/31/93
Money	7313.7	7640.2	9312.4	9955.3	9100.0	11292.4	11532.4	12941.3	16318.4	16546.7	16876.7	21683.5	20232.5	18548.4
Quasi-Money	2601.2	5412.1	7406.2	7686.4	9038.3	10049.2	13665.5	17736.7	20726.3	23265.4	20479.8	20707.7	22019.0	24215.8
Long-Term Foreign Liabilities	1981.7	3823.4	12890.1	13246.3	13291.1	3750.3	12992.9	25438.8	25067.7	24371.2	24315.4	9451.5	8274.4	9094.4
Other Items (Net)	-430.0	-810.6	-7371.9	-7376.1	-7944.6	5596.0	6506.9	3935.2	-6602.4	-3248.1	-7326.6	-621.9	-1086.7	-4002.6

MONETARY AUTHORITIES

A S S E T S	12/31/91	12/31/92	1/31/93	2/28/93	3/31/93	4/30/93	5/31/93	6/30/93	7/31/93	8/31/93	9/30/93	10/31/93	11/30/93	12/31/93
Foreign Assets	1989.0	2212.3	2255.2	2253.1	4101.0	4543.4	11905.8	16664.8	13556.4	15289.8	14511.6	21925.4	22104.4	25615.6
Claims on Central Government	82.0	0.0	0.0	0.0	0.0	0.0	1056.6	9228.9	0.0	0.0	0.0	0.0	0.0	759.2
Claims on Nonfinancial Public Enterprises	0.0	0.0	0.0	0.0	20.0	153.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Claims on Private Sector	2.8	1.3	1.3	1.3	1.2	1.2	1.2	5.1	8.5	9.7	10.1	10.6	10.8	9.2
Claims on deposit Money Banks	1528.5	6152.7	6387.4	7297.4	5916.5	70.8	7854.1	6810.2	7081.6	7851.5	7210.8	5852.5	6916.0	6637.3
L I A B I L I T I E S	12/31/91	12/31/92	1/31/93	2/28/93	3/31/93	4/30/93	5/31/93	6/30/93	7/31/93	8/31/93	9/30/93	10/31/93	11/30/93	12/31/93
Reserve Money	2068.1	5316.2	5027.1	5493.8	5620.4	7380.1	7474.2	6879.3	7292.5	9784.4	11327.5	11545.9	12521.6	14277.1
of which: Currency Outside Banks	1694.3	1839.2	2268.4	2728.1	2512.7	2683.6	2245.5	3515.1	4305.4	5469.4	6401.4	6966.3	7810.5	8750.6
Deposit Money Banks Cash	308.7	1057.2	530.5	532.2	589.4	592.6	1108.2	550.0	721.5	943.9	1183.7	1500.6	1713.9	2035.5
Deposit Money Banks Deposit	37.8	2408.6	2213.7	2219.7	2357.2	3927.3	4061.2	2751.5	2201.4	3307.0	3678.6	3063.5	2358.2	3450.4
Private Sector Deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Public Sector Deposits	27.3	11.2	14.5	13.8	161.1	176.6	59.3	62.7	64.2	64.1	63.8	15.5	39.0	40.6
Time and Foreign Currency Deposits	0.1	0.0	0.0	0.0	530.4	516.4	45.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B&M Bill	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0	1500.0
Foreign Liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15001.3	15161.9	15219.8
Long-term Foreign Liabilities	10.7	13.9	13.9	13.9	13.9	3750.3	12992.9	25438.8	25067.7	24371.2	24315.4	9451.5	7809.8	7790.9
Central Government Deposits	784.4	1201.8	878.7	720.5	2142.1	1674.6	2530.5	1722.2	857.4	339.3	481.0	700.2	412.4	638.6
Capital Accounts	3070.4	3264.3	3264.3	3266.0	2769.5	1228.3	5195.8	11101.3	13406.1	14425.6	14428.1	14373.4	14398.3	1479.9
Other Items (Net)	-2331.4	-1429.9	-540.1	57.6	-1037.6	-9780.9	-7521.1	-12432.6	-25977.2	-25769.5	-28819.5	-23283.8	-22272.8	-7885.0

DEPOSIT MONEY BANKS

A S S E T S	12/31/91	12/31/92	1/31/93	2/28/93	3/31/93	4/30/93	5/31/93	6/30/93	7/31/93	8/31/93	9/30/93	10/31/93	11/30/93	12/31/93
Reserves	345.5	3023.5	2685.6	2896.6	3051.3	4407.0	4312.3	3410.1	3534.9	4189.3	5030.4	4603.5	4627.7	5690.3
P&M Bill	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1000.0
Foreign Assets	3214.6	2090.6	6087.4	6204.3	7287.5	5436.8	10722.1	13489.4	14285.6	16682.5	13587.6	12757.7	13561.4	16325.2
Claims on Central Government	5.0	99.9	177.1	253.8	220.0	372.3	467.0	475.4	515.1	679.9	578.9	773.0	844.3	232.7
Claims on NonFinancial Public Enterprises	9779.6	12204.2	15217.5	15437.5	13244.9	16340.0	19904.1	19690.8	24562.5	24828.3	24466.8	29015.5	26219.7	21744.4
Claims on Private Sector	3072.5	6924.4	7930.0	8678.4	9386.9	11111.1	11334.5	10742.8	11926.3	12141.4	10891.1	12020.3	11182.6	9850.1
L I A B I L I T I E S	12/31/91	12/31/92	1/31/93	2/28/93	3/31/93	4/30/93	5/31/93	6/30/93	7/31/93	8/31/93	9/30/93	10/31/93	11/30/93	12/31/93
Demand Deposits	5592.1	5789.8	7029.5	7213.4	6426.2	8432.2	9227.6	9363.5	11948.8	11013.2	10411.5	14701.7	12383.0	9757.2
Time and Foreign Currency Deposits	2601.1	5412.1	7406.2	7686.4	8507.9	9532.8	13620.1	17736.7	20726.3	23265.4	20479.8	20707.7	22019.0	24215.8
Foreign Liabilities	4708.2	4316.0	5726.3	5788.0	5864.4	2271.5	3948.6	4261.6	4290.0	3789.7	3701.6	4151.1	3367.6	3325.3
Long-Term Foreign Liabilities	1971.0	3809.5	12876.2	13232.4	13277.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	464.6
Central Government Deposits	1186.3	1949.8	2826.7	2808.0	2770.2	3324.2	4114.5	4260.4	4197.0	4567.4	5518.2	5429.1	5542.1	7496.7
Credit from Central Bank	1522.6	6287.6	6462.5	6839.9	5468.1	6695.7	7161.5	5547.7	5645.3	6242.3	5774.6	4234.8	4541.9	5390.9
Capital Accounts	1687.9	2641.8	2851.0	3090.1	3704.8	4278.2	4889.4	5125.9	5592.6	5757.0	5731.0	5984.1	6280.9	7291.8
Other Items (Net)	-2852.0	-5864.0	-13080.8	-13187.6	-12828.2	3132.6	3778.3	1511.7	2424.4	3866.4	2938.1	3961.5	2836.6	-3438.5

EXCHANGE RATES

(Foreign Currency Units per Mongolian Tugrog)

Currency	Code Unit	1993													
		12.31	01.31	02.28	03.31	04.30	05.28	06.30	07.28	08.27	09.29	10.26	11.19	12.30	
Austrian schilling	ATS	1	2.56	9.69	9.43	9.45	9.48	34.63	33.45	32.53	32.40	34.14	33.06	32.88	33.13
US dollar	USD	1	40.00	150.00	150.00	150.00	394.00	400.00	395.00	390.00	389.00	391.31	395.00	395.00	396.51
Canadian dollar	CAD	1	22.86	85.71	86.96	85.23	311.78	311.98	308.30	296.51	292.63	299.60	301.31	298.28	298.28
GB pound sterling	GBP	1	26.49	100.00	104.90	100.00	611.68	598.68	590.40	585.66	587.70	580.55	583.61	583.61	592.70
Italian lira	ITL	1	19.80	73.17	68.49	67.26	71.43	0.27	0.26	0.24	0.24	0.25	0.24	0.23	0.23
French franc	FRF	1	5.28	20.08	19.51	19.58	72.08	70.28	66.99	66.69	68.91	66.69	66.70	66.70	68.39
Deutsche mark	DEM	1	18.10	68.18	66.37	66.67	242.98	236.93	229.02	232.28	257.48	232.48	231.19	233.10	233.10
Swiss franc	CHF	1	4.13	15.02	13.91	13.85	14.48	271.91	265.51	259.69	264.67	264.06	263.38	275.01	275.01
Japanese yen	JPY	1	0.23	0.87	0.93	0.92	3.65	3.74	3.70	3.75	3.69	3.61	3.69	3.55	3.55
Europ.Cur. Unit.	ECU	1	48.40	183.00	175.50	180.00	326.56	344.67	350.95	342.85	331.17	343.95	351.07	349.19	349.19

(Source: IxM, ID)

DEPOSIT AND LENDING RATES

	1992				1993			
	03/31	06/30	09/31	12/31	03/31	06/30	09/30	12/31
DEPOSIT RATES								
Current accounts								
Central Government								
State Enterprises	0.5-1.0	0.5-1.0	1.0	1.0	1.0	1.0	2.0	2.0
Private Sector	0.5-1.0	0.5-1.0	1.0	1.0	1.0	1.0	2.0	2.0
Saving Deposit Accounts	4.0	4.0	4-15.0	10-51.6	10-63.8	24-125.0	24-125.0	24-100.0
Time Deposit Accounts								
Domestic Currency								
up to 1 year								
1-3 years	6.0	18.0	28.0	50-70.0	54-84.0	60-151.8	90-151.8	70-153.0
3-5 years	8.0	24.0	32.0	50-70.0	60-84.0	60-151.8	125-151.8	125-151.8
More than 5 years	8.0	32.0	40.0	50-70.0	60-90.1	60-151.8		
Foreign currency								
1-3 years	8.0	8.0	10.0	40.0	48-60.0	48-70.0	15-70.0	10-72.0
3-5 years	10.0	10.0	12.0	50.0	48-60.0	48-70.0	15-70.0	
More than 5 years	10.0	12.0	15.0	50.0	48-60.0	48-70.0	15-70.0	
LENDING RATES								
Mongolbank rate	30.0	30.0	100-214.0	120-240.0	120-300.0	120-300.0	120-300.0	120-300.0
Commercial Loans								
Short Term (Less than 1 year)								
State Enterprises	15.0	30.0	60.0	100.0	133.0	159.0	197.2	182.5
Private Business	25.0	40.0	72.0	127.0	169.0	217.0	228.0	215.4
Consumer	40.0	50.0	100.0	147.0	207.0	225.0	214.0	222.5
Medium & Long Term								
1-3 years	...	...	...	...	...	...	...	...
3-5 years	...	...	...	...	...	...	...	...
More than 5 years	7.0	...	...	...	...	...	...	...

(Source: Mbb, SBD)