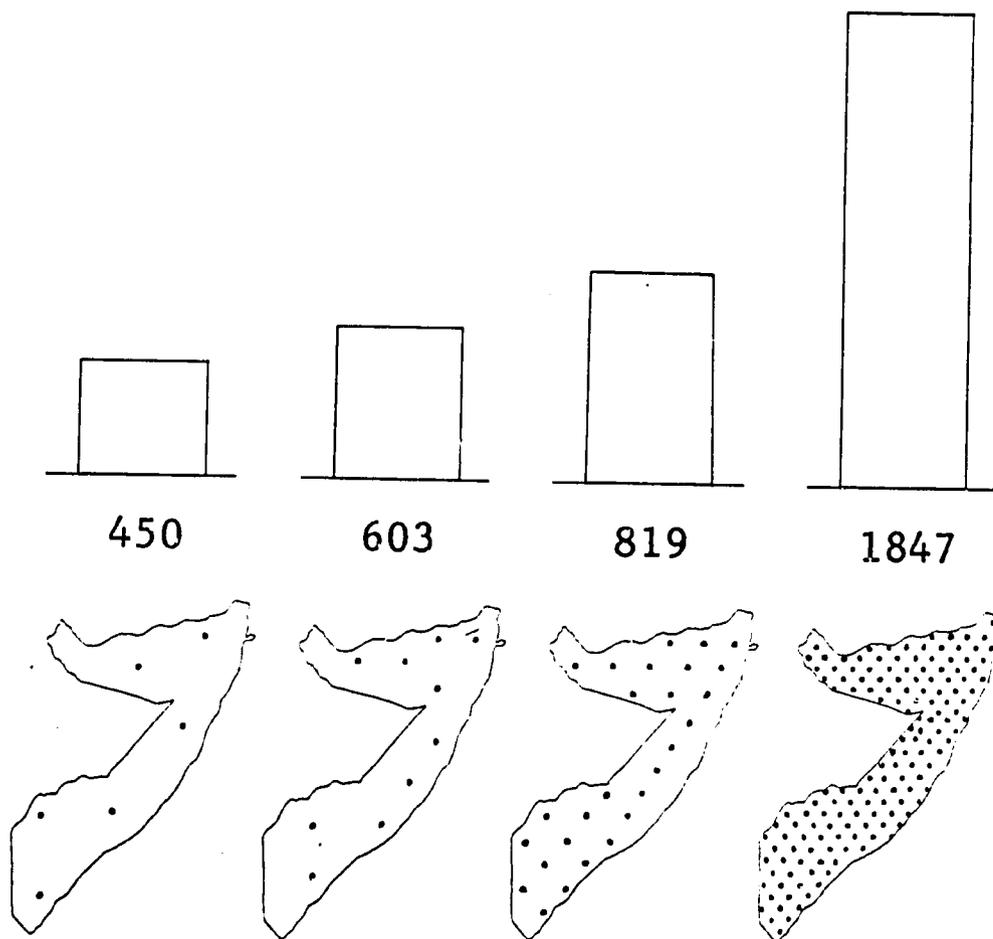


WATER INDUSTRY DEVELOPMENT

PROJECT

DETAILED

PROGRAM DESCRIPTION



Louis Berger International, Inc.

WATER INDUSTRY DEVELOPMENT PROJECT
DETAILED PROGRAM DESCRIPTION
Wednesday, May 14

I. OVERVIEW OF PROGRAM

II. PHASE I

A. Action Components

1. Well Survey
2. Well Rehabilitation/Closure
3. Well Maintenance
4. Start Up Well Operations,
5. Well Operations
6. Well Drilling

B. Institution Building Components

1. Technical Assistance for Action Components
2. Design of Contracting & Regulatory Policies & Procedures
3. Technical Assistance for Promotion of Joint Ventures
4. Feasibility & Prefeasibility Studies for Support Industry

C. Donor Water Policy Co-Ordination, Prepare for Establishment of PRI Fund

D. Evaluation and Assessment of Phase I; Decisions on Phase

II

III. PHASE II

A. Action Components

B. Institutional Arrangements

1. Experimental Programs in Price Regulation, Well Ownership, & Water Table Depletion Charges
2. Implementation of Contracting Policy
3. Implementation of Regulatory Policy
4. Establishment of PRI Fund
5. Prepare for Establishment of FINEQUIP & WISC

C. Evaluation and Assessment of Phase II; Decisions on Phase III

IV. PHASE III

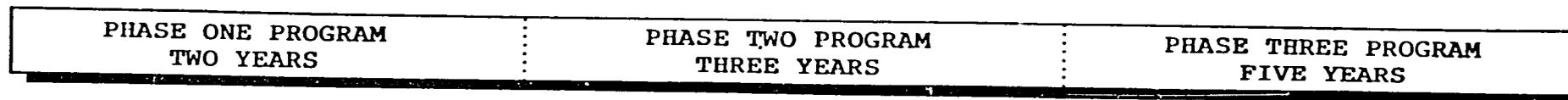
A. Action Components

B. Institutional Arrangements

1. Pilot Program in Private Well Ownership
2. Evolution of PRI Fund
3. Establishment of FINEQUIP
4. Establishment of WISC
5. Water Pricing Policy

C. Evaluation and Assessment of Phase III; Decision on Re-Oriented Role For WDA.

**OVERVIEW OF RECOMMENDED PROGRAM
ACTION COMPONENTS**



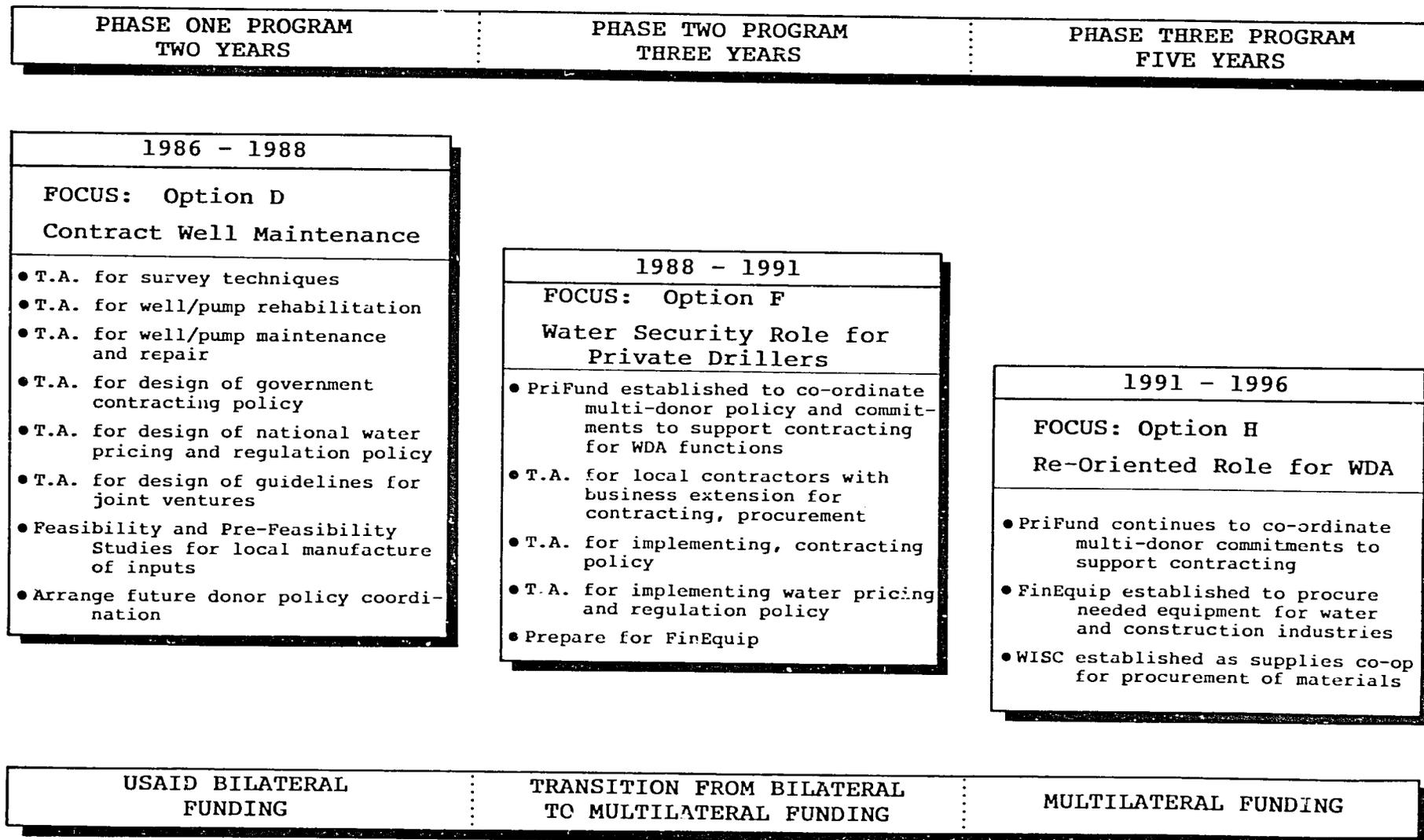
1986 - 1988
FOCUS: Option D Contract Well Maintenance
<ul style="list-style-type: none"> • Initiate well survey: 130 wells • Initiate high impact well rehabilitation: 66 wells • Begin routine contract maintenance program: all new and rehabilitated wells • Begin routine contract operations program: all new and rehabilitated wells • Begin contract well drilling: 4 wells

1988 - 1991
FOCUS: Option F Water Security Role for Private Drillers
<ul style="list-style-type: none"> • Continue well rehabilitation: 72 wells • Continue and expand routine contract maintenance: all new and rehabilitated wells • Continue and expand routine contract operations: all new wells • Expand contract well drilling: 8 + 12 + 16 new wells

1991 - 1996
FOCUS: Option H Re-Oriented Role for WDA
<ul style="list-style-type: none"> • Continue well rehabilitation: 72 wells • Continue and expand routine contract maintenance: all new and rehabilitated wells • Continue and expand routine contract operations: all new wells • Further expand contract well drilling: 20-30 new wells per year • WDA assume regulatory role

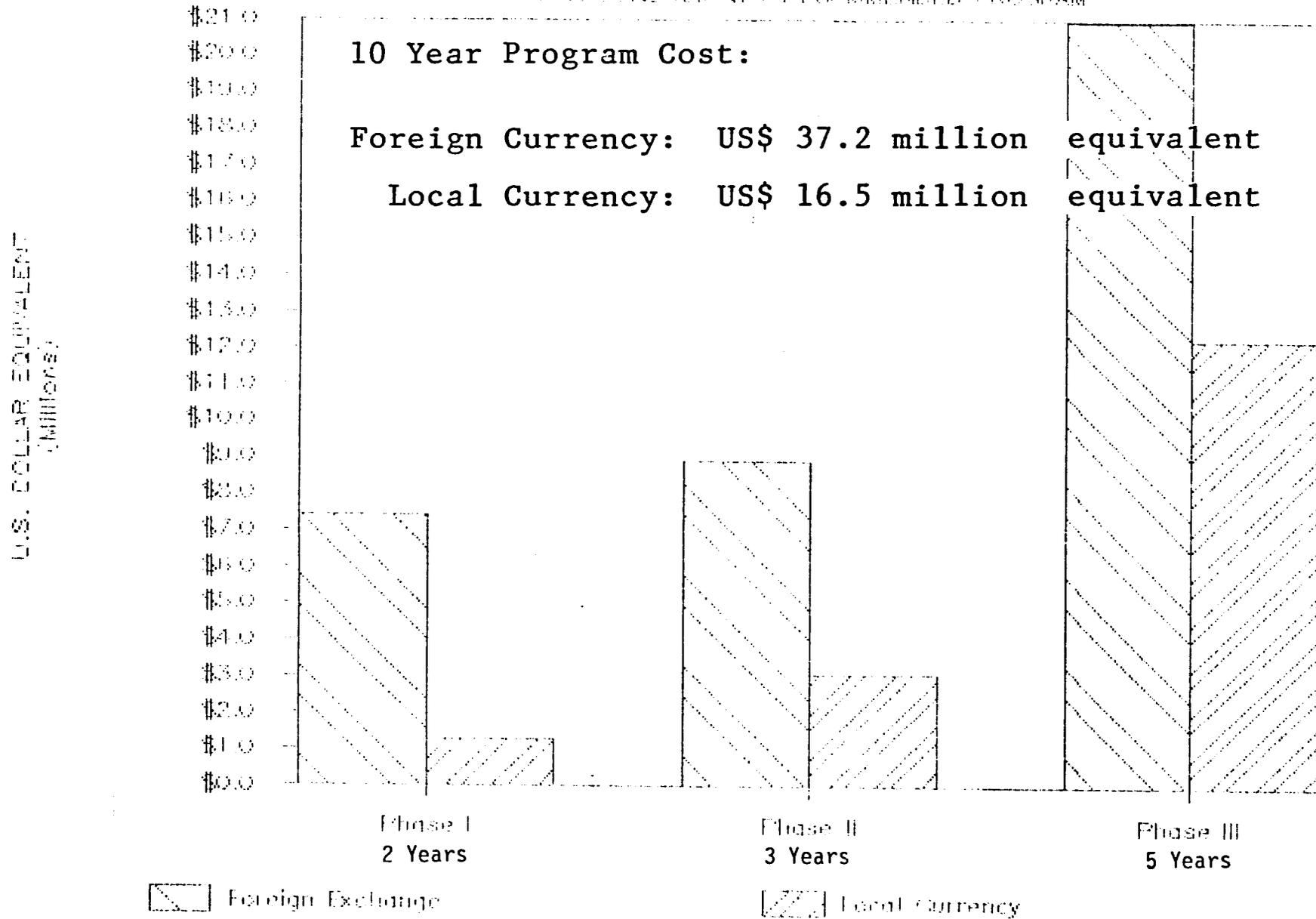


**OVERVIEW OF RECOMMENDED PROGRAM
TECHNICAL ASSISTANCE AND INSTITUTIONAL COMPONENTS**

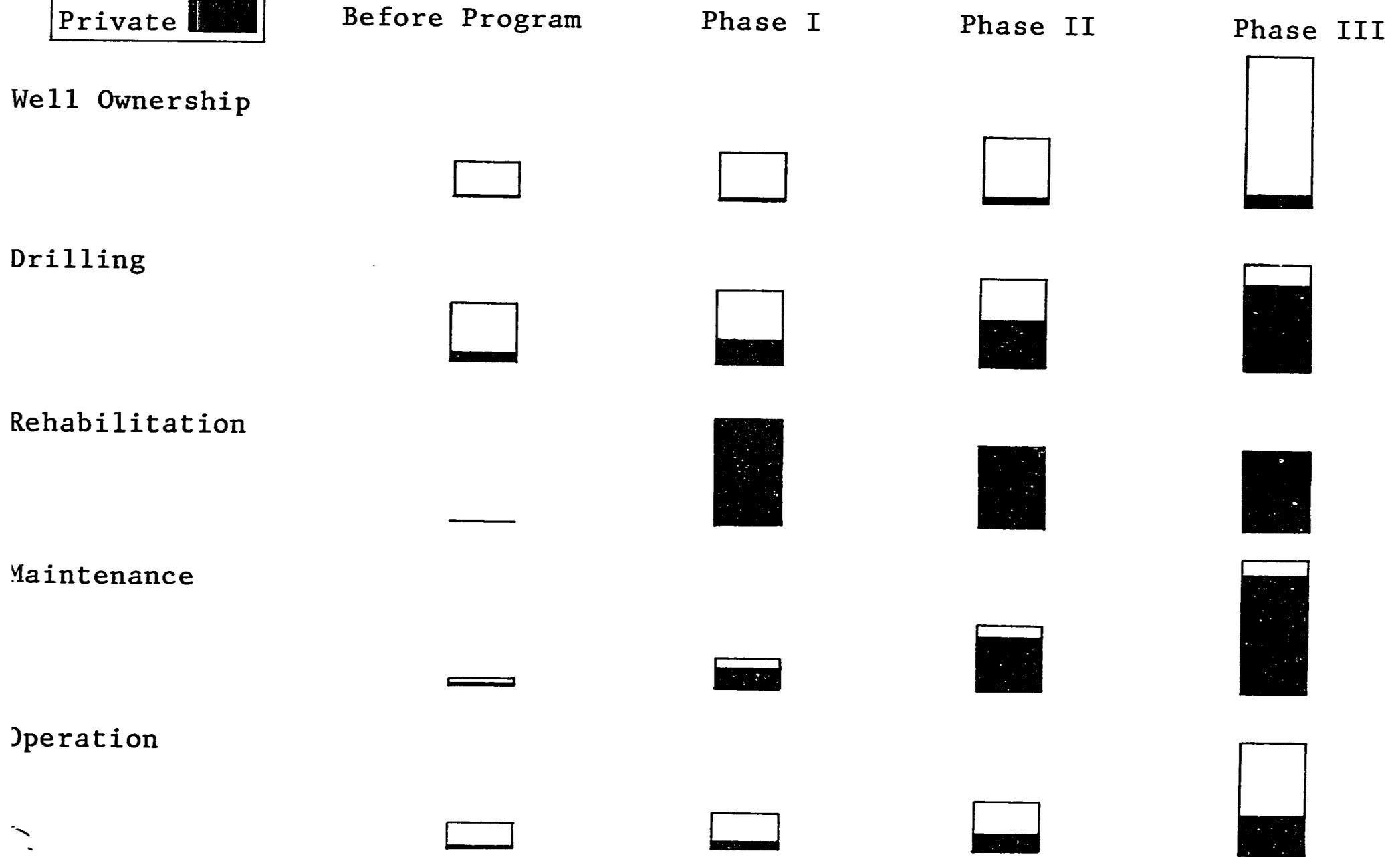
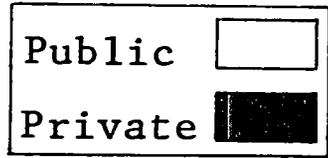


OVERVIEW OF FUNDING REQUIREMENTS

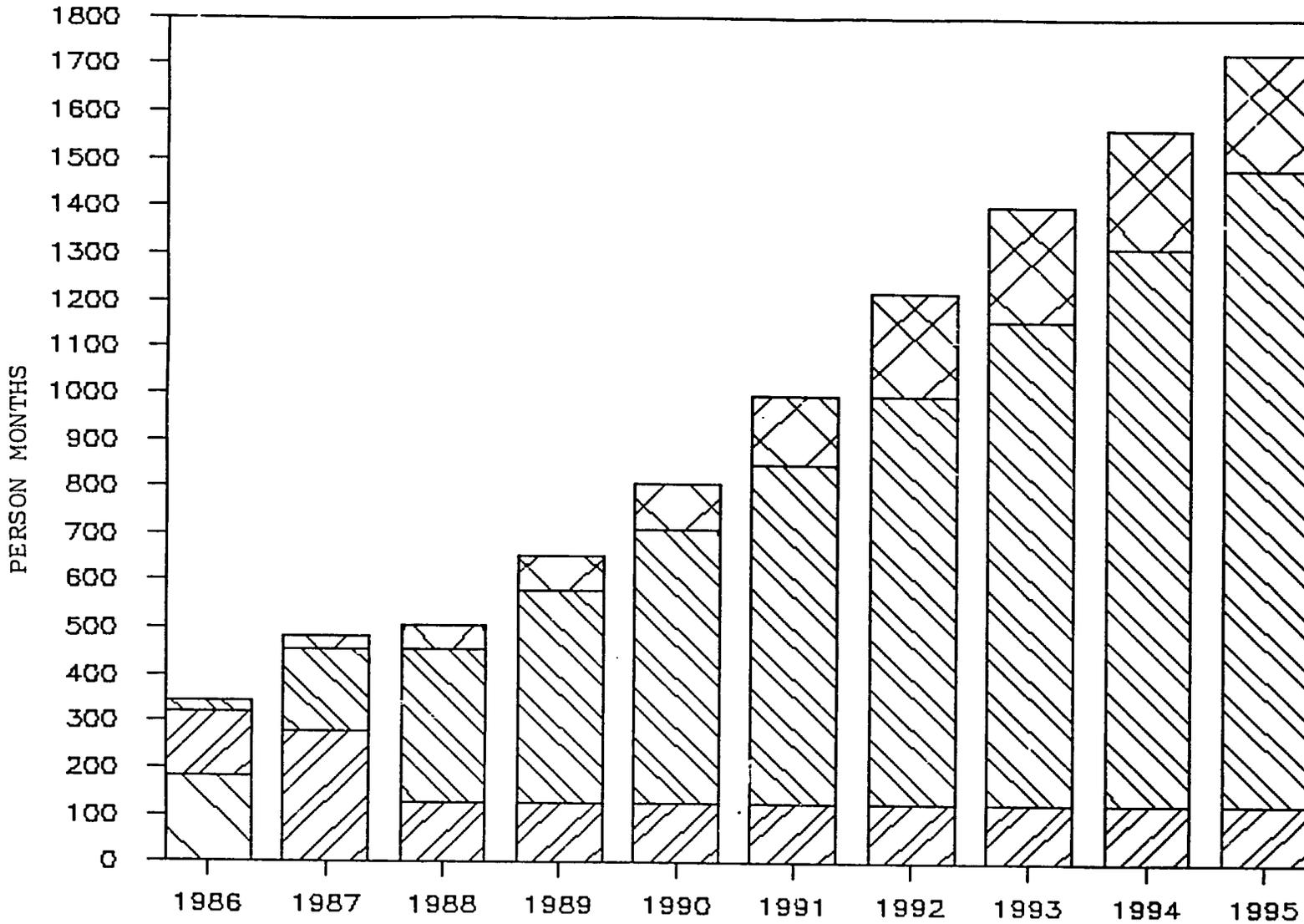
FOR CONSULTANT RECOMMENDED PROGRAM



OVERVIEW OF WATER DEVELOPMENT INDUSTRY IN SOMALIA : EVOLUTION OF ACTION COMPONENTS



**EMPLOYMENT GENERATED BY SELECTED
PROGRAM ELEMENTS**



PROGRAM
TYPE :

 SURVEY

 REHABILITATION

YEAR
 MAINTENANCE

 DRILLING

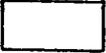
WELL OWNERSHIP

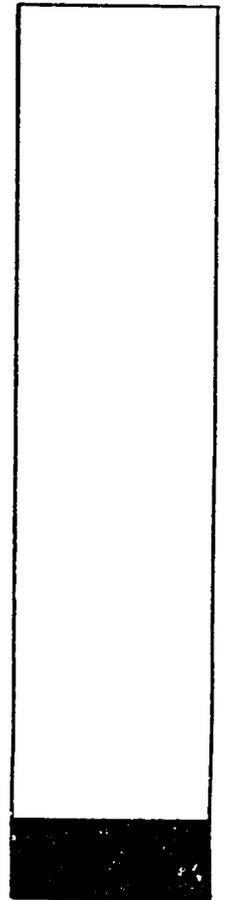
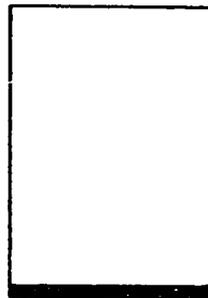
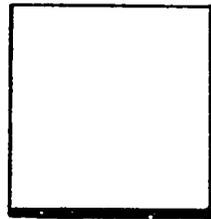
Before Program

Phase I

Phase II

Phase III

Public 
Private 

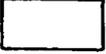


REHABILITATION

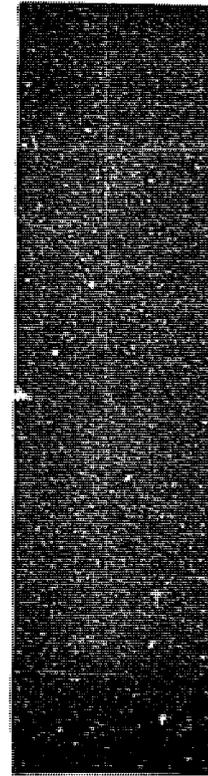
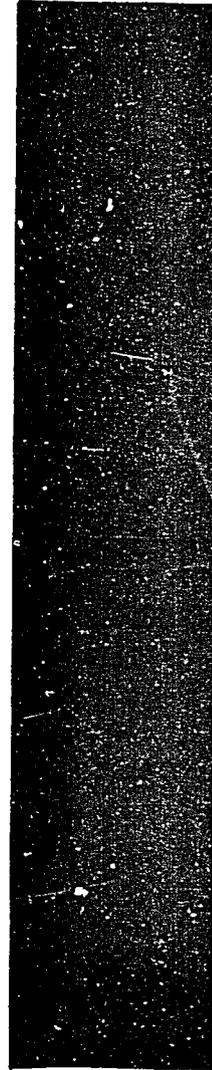
END OF
PHASE I

END OF PHASE II

END OF PHASE III

Public 
Private 

PRESENT



MAINTENANCE

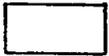
Before Program

Phase I

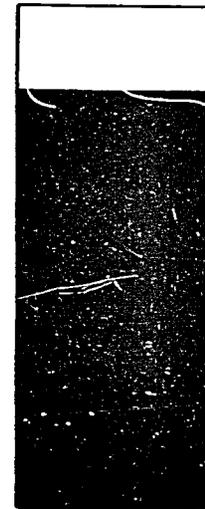
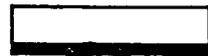
Phase II

Phase III

Public



Private



OPERATION

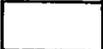
Before Program

Phase I

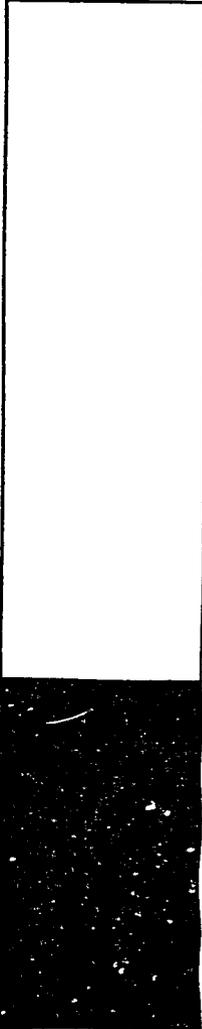
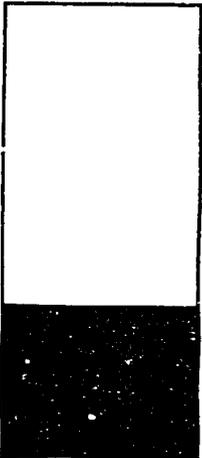
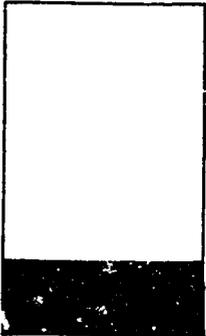
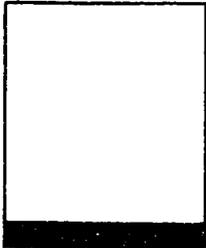
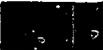
Phase II

Phase III

Public



Private



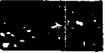
DRILLING

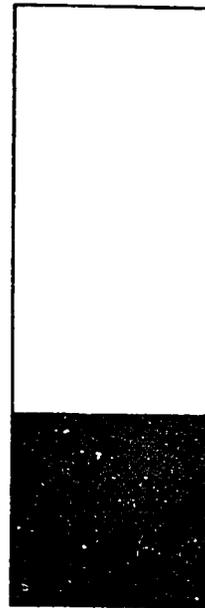
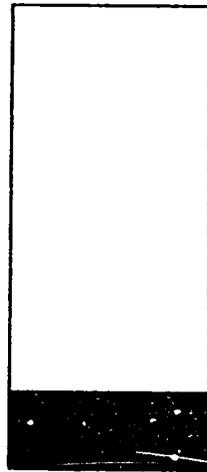
Before Program

Phase I

Phase II

Phase III

Public 
Private 



PHASE ONE PROGRAM
TWO YEARS

1986 - 1988

FOCUS: Option D

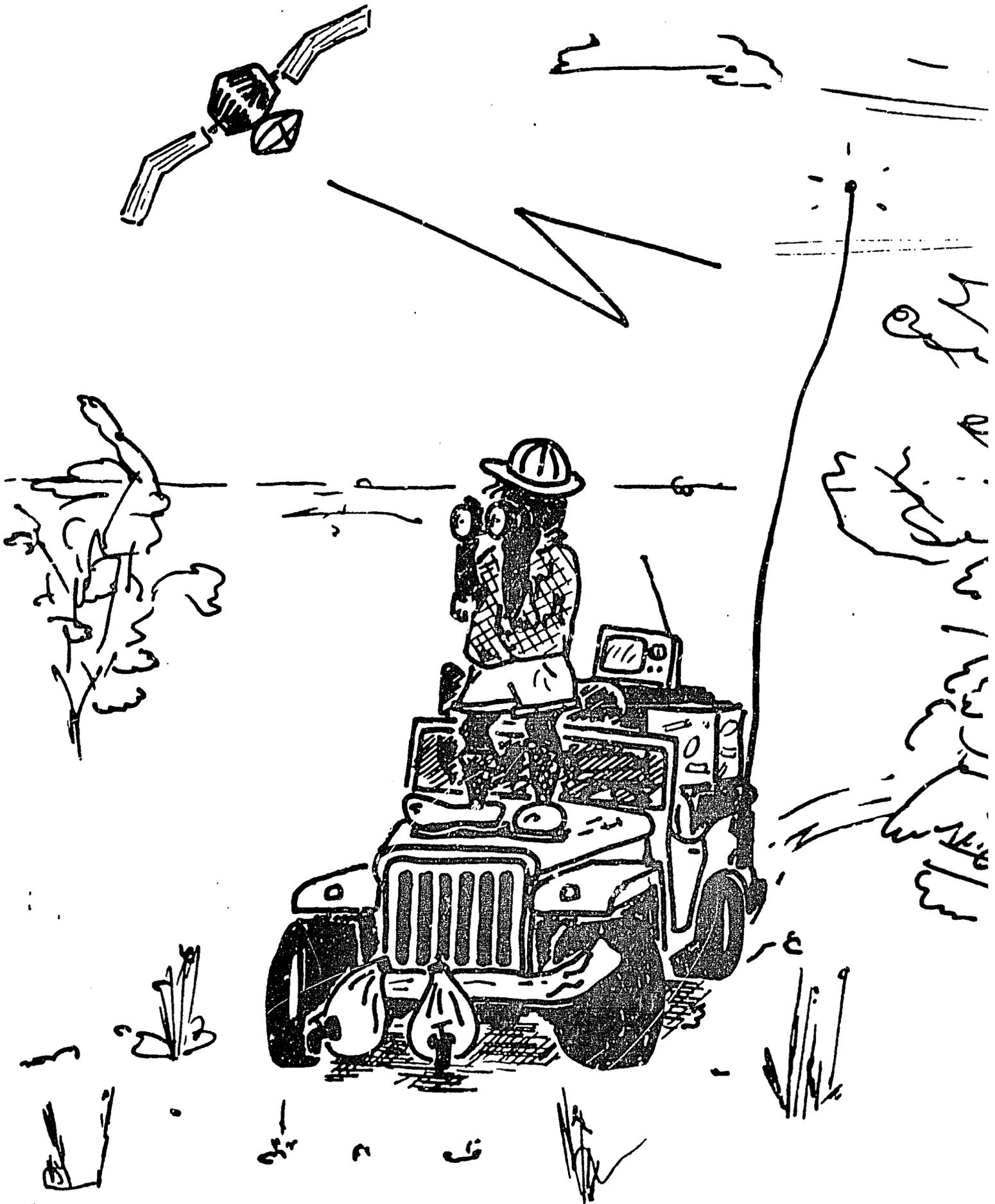
Contract Well Maintenance

- Initiate well survey:
130 wells
- Initiate high impact well
rehabilitation:
66 wells
- Begin routine contract maintenance
program: all new and rehabil-
itated wells
- Begin routine contract operations
program: all new and rehabil-
itated wells
- Begin contract well drilling:
4 wells

USAID BILATERAL
FUNDING

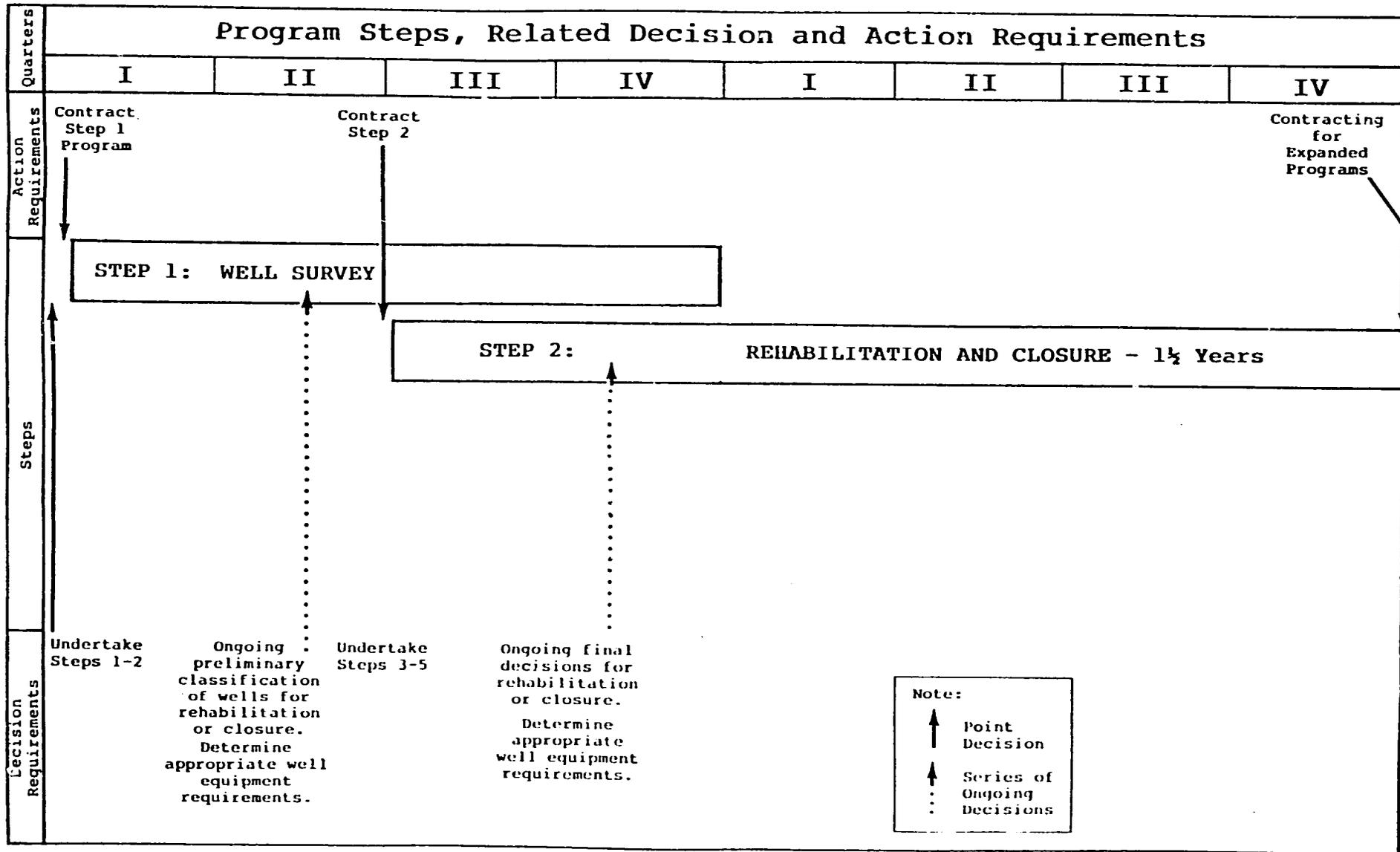


SURVEY



CONSULTANTS RECOMMENDED PROGRAM

PHASE ONE

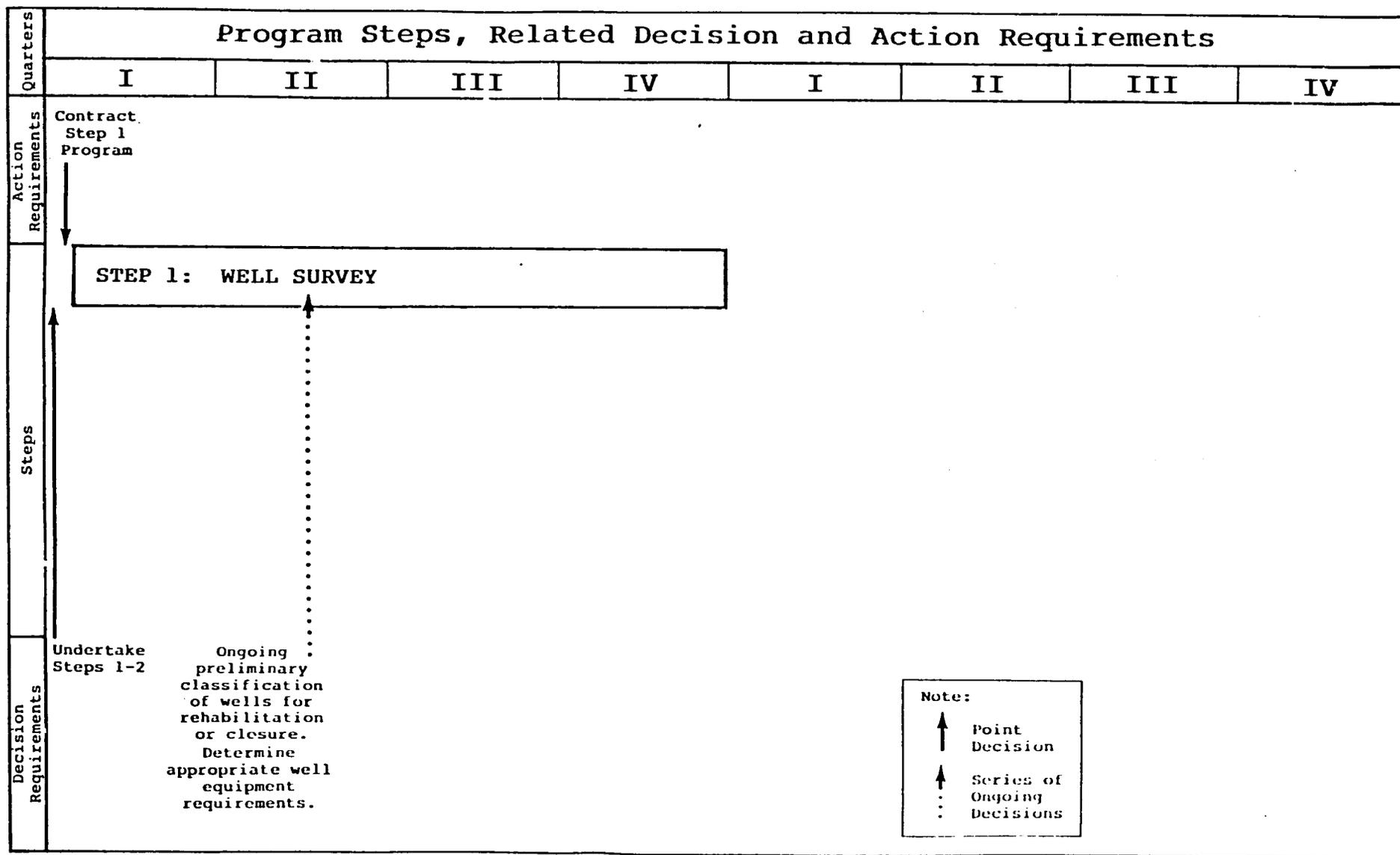


REHABILITATION

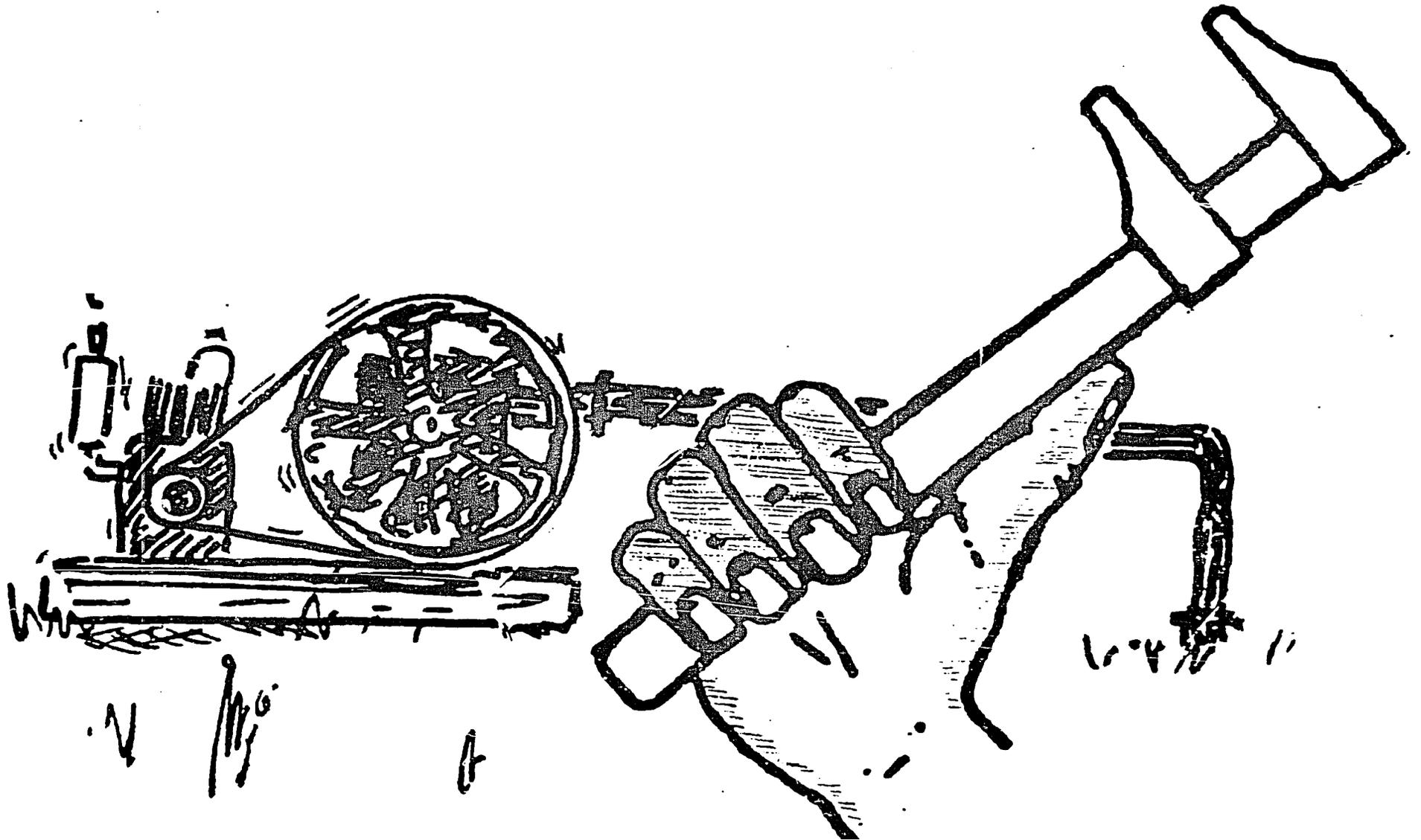


CONSULTANTS RECOMMENDED PROGRAM

PHASE ONE

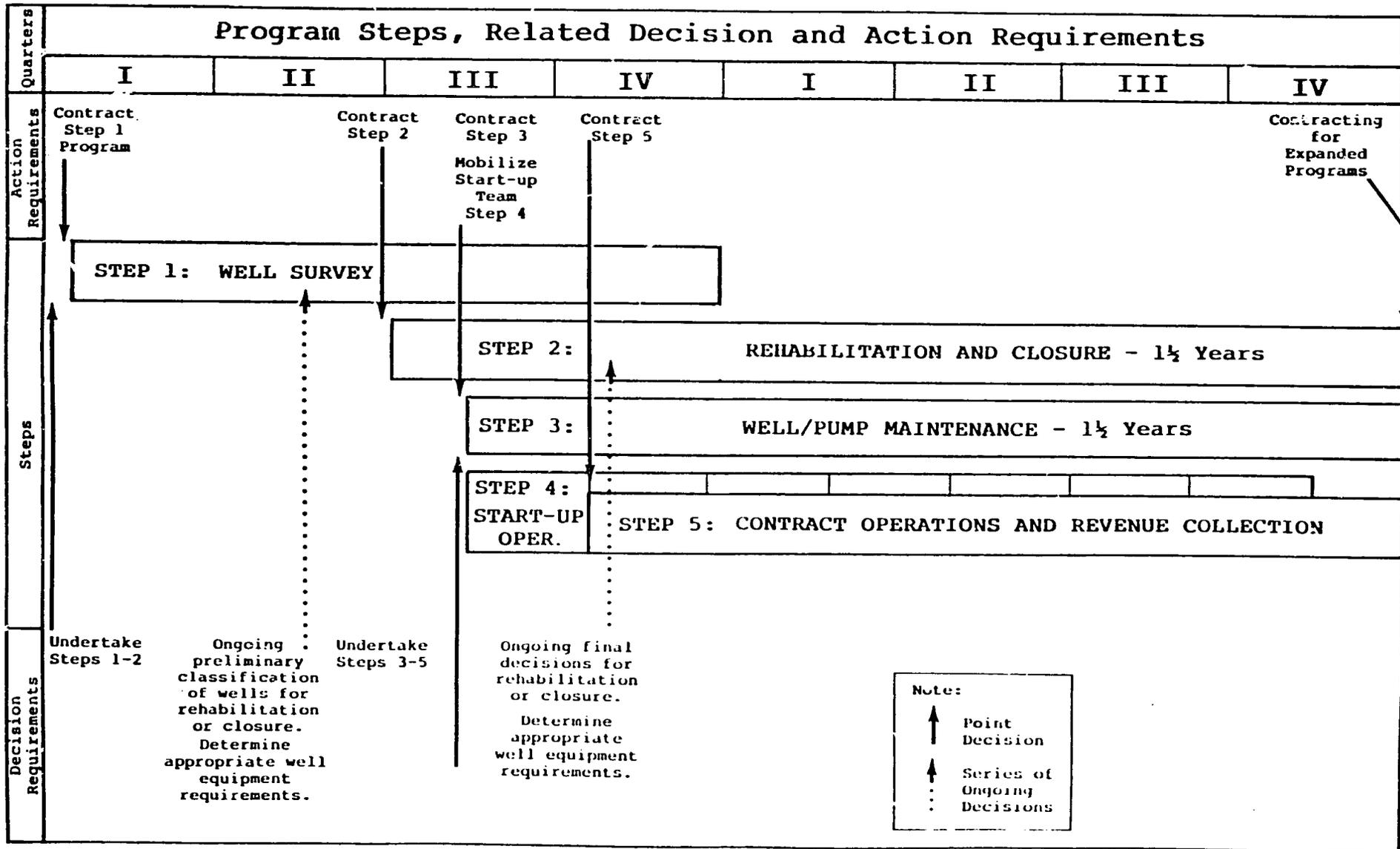


MAINTENANCE



CONSULTANTS RECOMMENDED PROGRAM

PHASE ONE

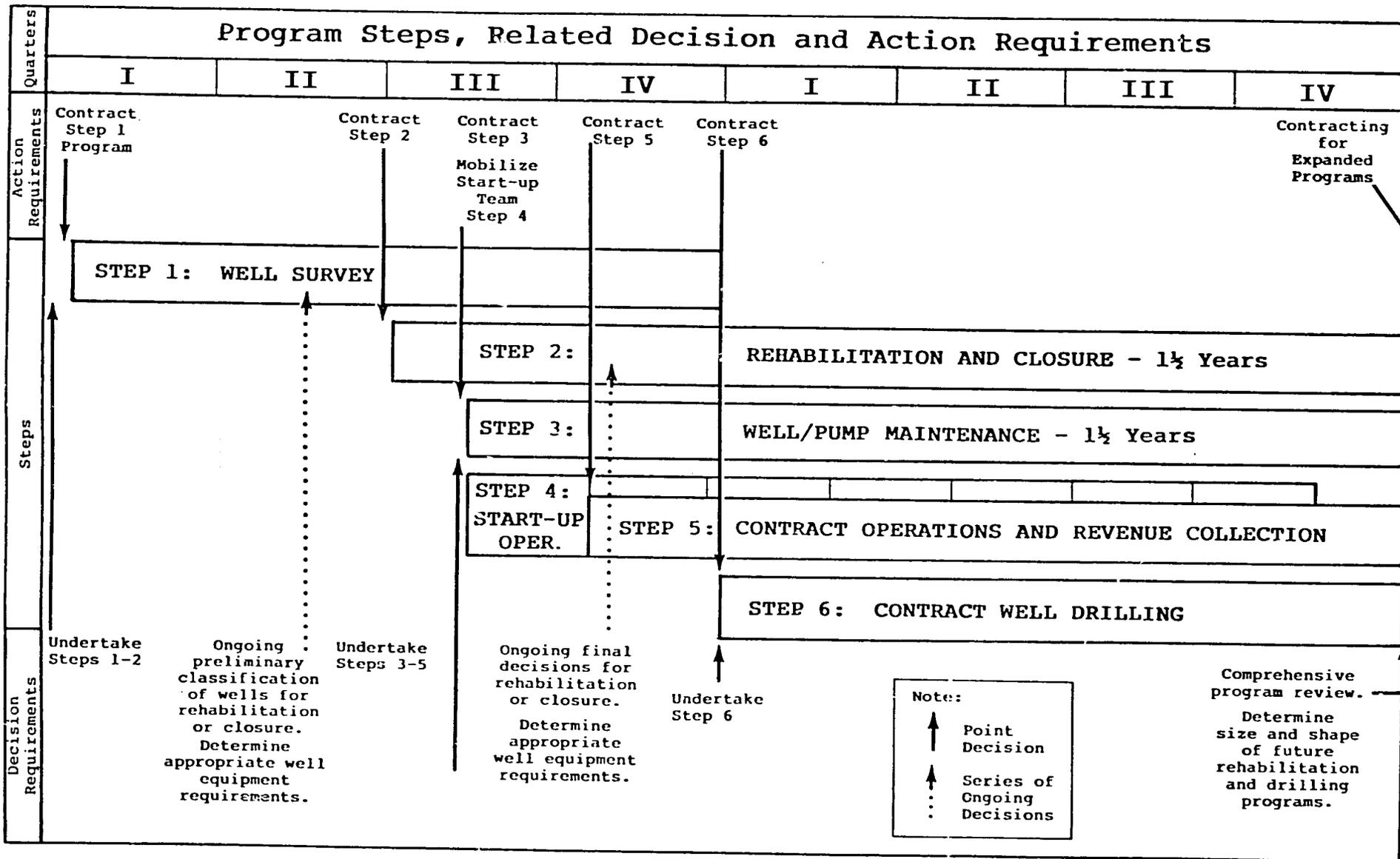


OPERATIONS



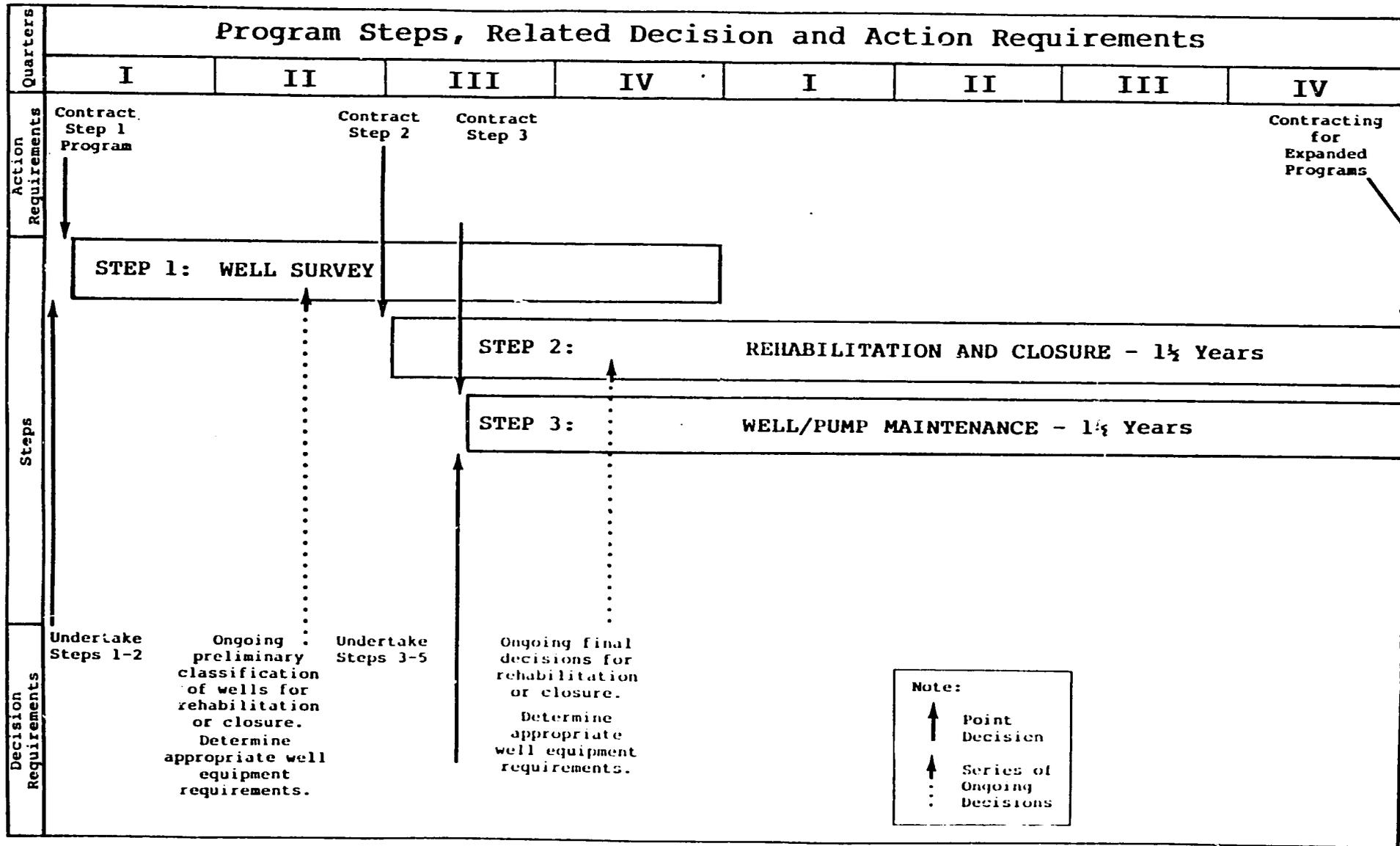
CONSULTANTS RECOMMENDED PROGRAM

PHASE ONE

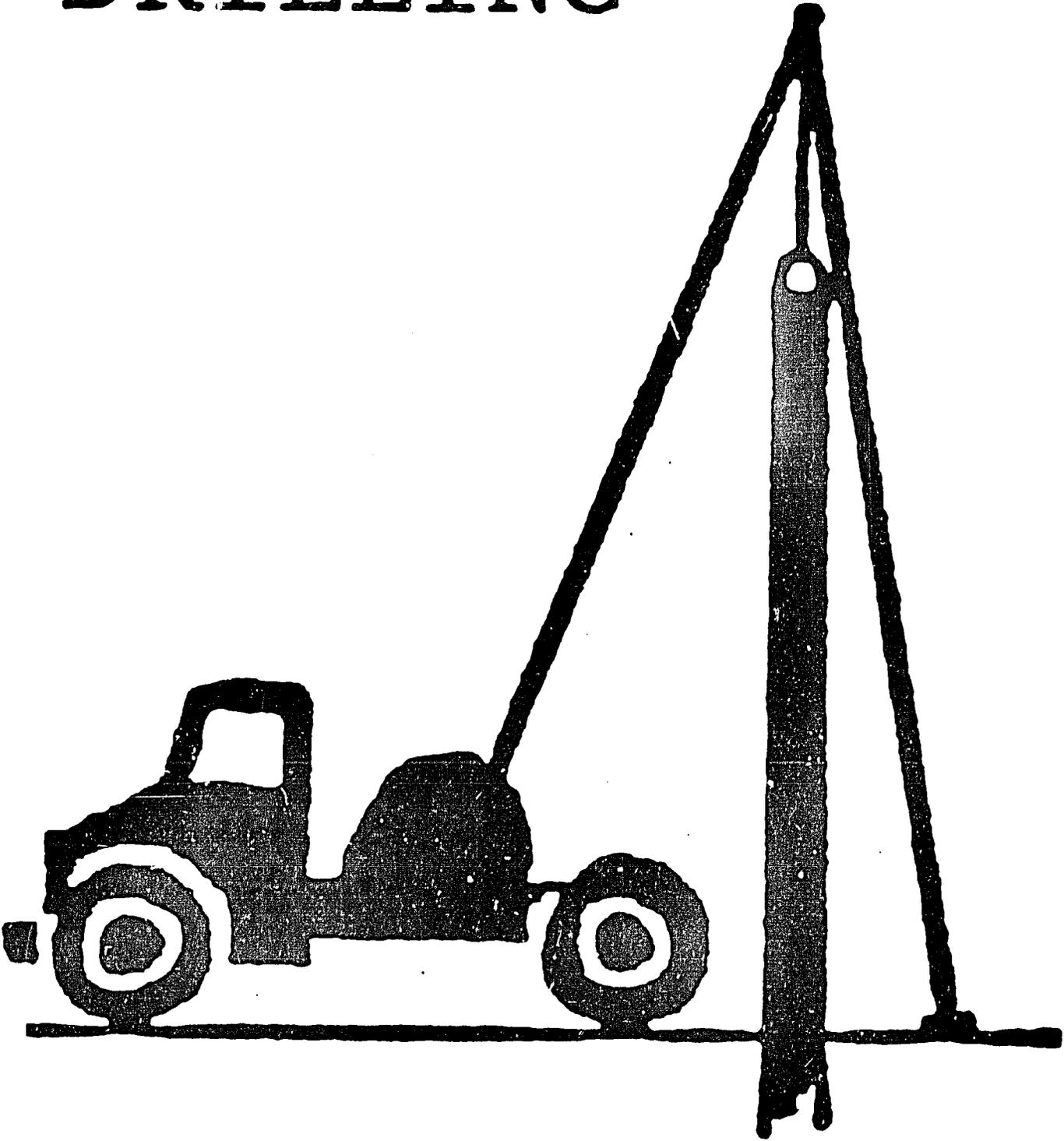


CONSULTANTS RECOMMENDED PROGRAM

PHASE ONE

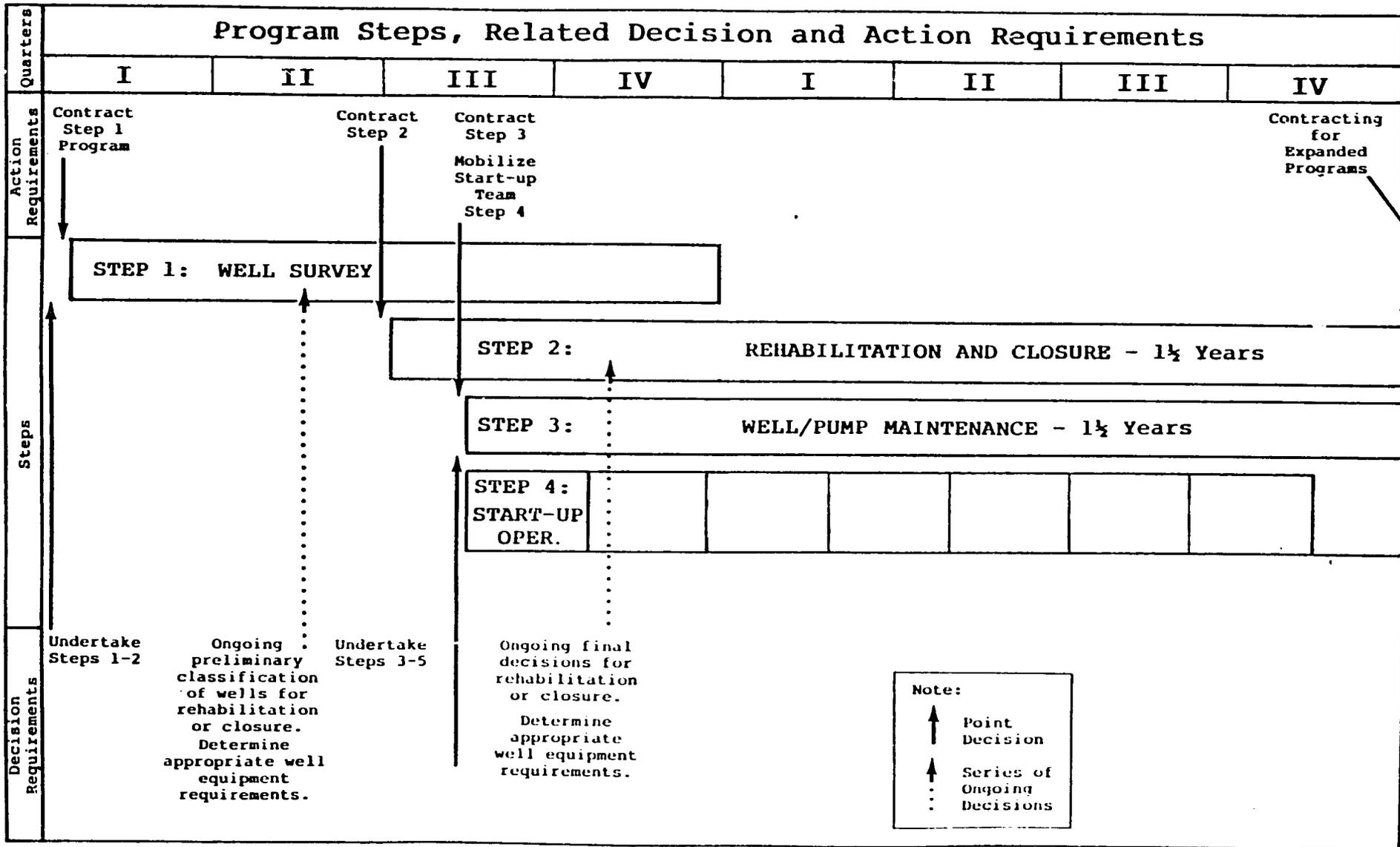


DRILLING



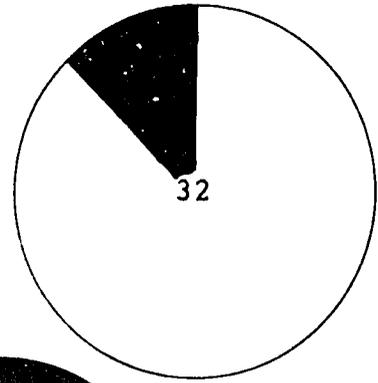
CONSULTANTS RECOMMENDED PROGRAM

PHASE ONE

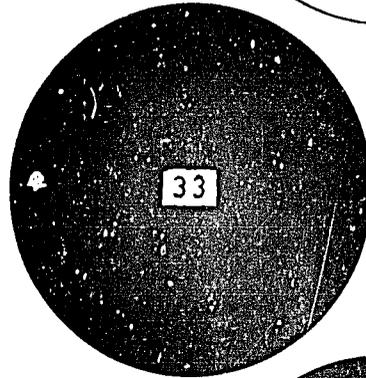


2 years

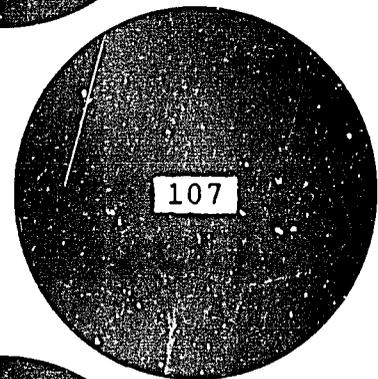
Drilling



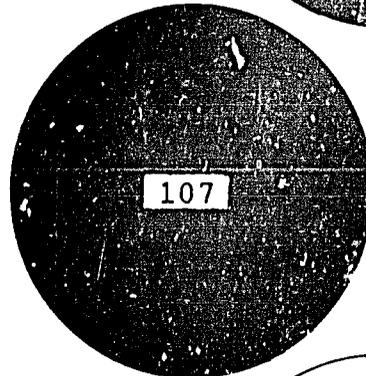
Rehabilitation



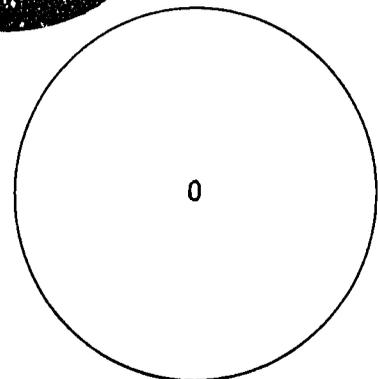
Maintenance



Operation



Pilot Program



Public 

Private 

Handwritten marks and signature

PHASE TWO PROGRAM
THREE YEARS

1988 - 1991

FOCUS: Option F

Water Security Role for
Private Drillers

- Continue well rehabilitation:
72 wells
- Continue and expand routine con-
tract maintenance: all new
and rehabilitated wells
- Continue and expand routine con-
tract operations: all new
wells
- Expand contract well drilling:
8 + 12 + 16 new wells

TRANSITION FROM BILATERAL
TO MULTILATERAL FUNDING

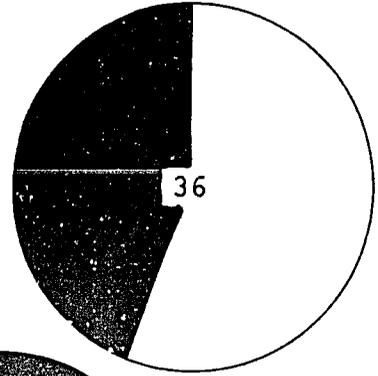


sp

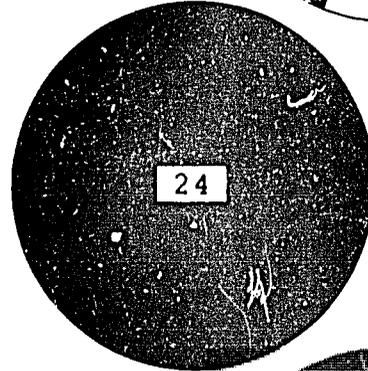
Phase II

3 years

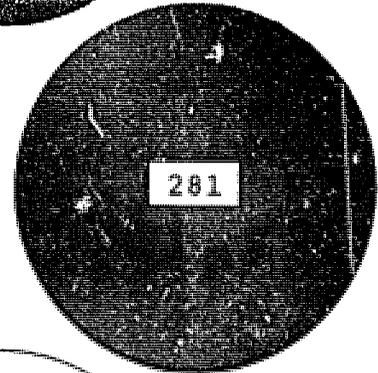
Drilling



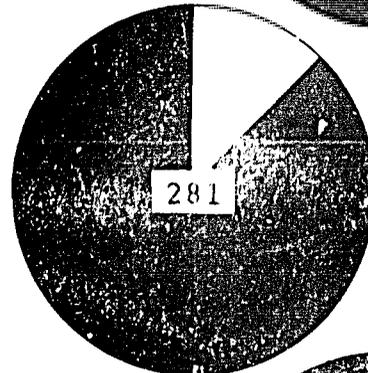
Rehabilitation



Maintenance



Operation



Pilot Program



Public 
Private 

26-

PHASE THREE PROGRAM
FIVE YEARS

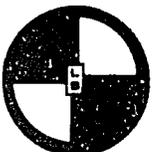
1991 - 1996

FOCUS: Option H

Re-Oriented Role for WDA

- Continue well rehabilitation:
72 wells
- Continue and expand routine contract maintenance: all new and rehabilitated wells
- Continue and expand routine contract operations: all new wells
- Further expand contract well drilling: 20-30 new wells per year
- WDA assume regulatory role

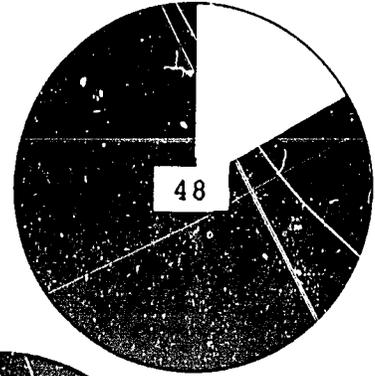
MULTILATERAL FUNDING



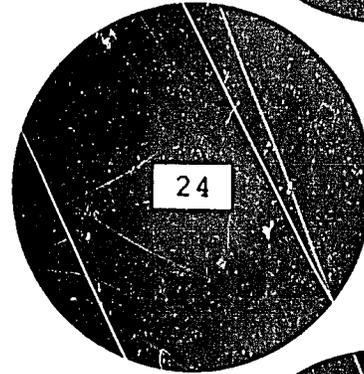
Phase III

5 years

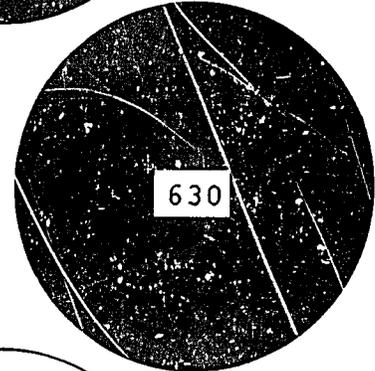
Drilling



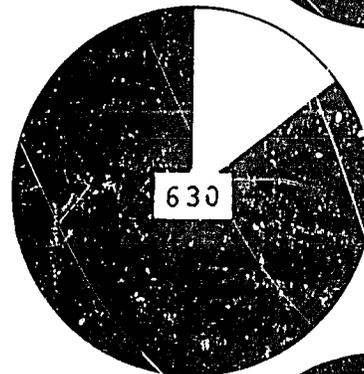
Rehabilitation



Maintenance



Operation



Pilot Program

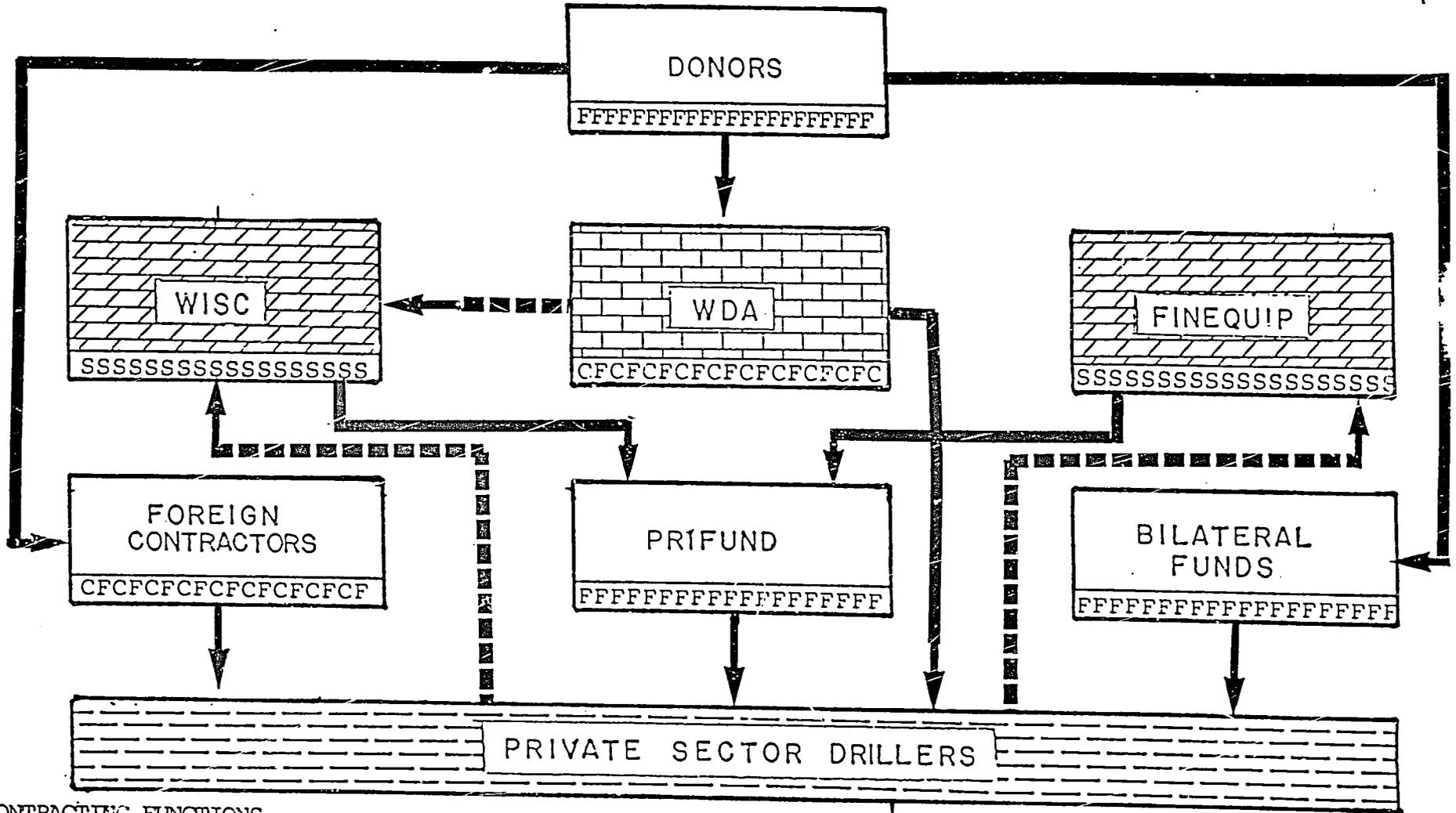


Public 
Private 



25

PRINCIPAL FINANCIAL RELATIONSHIPS AMONG INSTITUTIONS



CCC = CONTRACTING FUNCTIONS
 WISC = WATER INDUSTRIES SUPPLY COMPANY
 PRIFUND = PRIVATE SECTOR WATER DEVELOPMENT FINANCE AND GUARANTEE FUND
 FFF = FINANCING FUNCTIONS
 FINEQUIP = EQUIPMENT FINANCE CORPORATION
 SSS = SUPPLY AND SUPPORT FUNCTIONS

PRINCIPAL SOURCES →

← PRINCIPAL USES