

205.1 9000

(b)

COMMUNITY TRAINING SYLLABUS

PUMP ATTENDANTS TRAINING SEMINARS.

DRAFT 1

1990

205.1-9000-8898

ISN 8898

HAND PUMP ATTENDANTS' SEMINAR:

Participants of this seminar comprise of:

- Women chosen by and from the community using a particular hand pump well.
- Married with children and therefore are permanent members of the community.
- Respectful women and therefore are capable of passing on the acquired knowledge and skills to the rest of the community.
- Preferably literate.

Training needs of pump attendants:

- (a) Skills in basic operation and maintenance of hand pumps.
- (b) Knowledge of pump parts, common faults and remedies.
- (c) Prices of pump parts and, availability of spares and steps in maintenance/ repair of hand pumps.
- (d) Hygiene education which includes
 - i) disease transmission routes and
 - ii) the role of women and children in hygiene education.
- (e) Planing duty roster for well surrounding cleanliness and report on pump performance.

Aims and Objectives of the Pump Attendant's Seminar

The propose of the Hand Pump attendants training is therefore to:-

- Provide the necessary technical knowledge to the direct hand pump users (women).
- Provide sufficient skills and tools to users to do minor maintenance and repair of the hand pump with knowledge of pump parts and costs.
- Create a low cost maintenance system whereby the users themselves can operate and maintain their own facility.
- Encourage hygiene and sanitation education to women to become well caretakers.
- Encourage preventive maintenance by establishing a hand pump performance monitoring/inspection sheet.

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TOPICS/THEMES FOR PUMP ATTENDANTS' SEMINAR:

	Topic / Theme	Facilitators
	<u>General Awareness:</u>	
1	Problems Identification, Analysis and solving.	Training Team
2	Water and hygiene education for mothers and children.	PHT / CHW
3	Aims and objectives of the operation and maintenance department of KFWWSP.	O and M (Wpts) Wpts Trainer
	<u>Technical Awareness:</u>	
4	Hand pump parts and their mode of function.	Water Point Skills Trainer
5	Tools and hand pump parts necessary each year.	Trained pump attendants.
6	Pump assembling, dismantling and re-assembling.	Trained pump attendants.
7	Common faults, fault finding and their remedies.	Trained pump attendants.
8	Hand pump performance report and duty roster establishment for sanitary upkeep.	Trained pump attendants.
	<u>Economic Awareness:</u>	
9	Funds collection and record keeping as well as committee responsibilities.	Training team
10	Economic developments by the well site and appropriate fencing.	Training team

GENERAL AWARENESS

1. Problems Identification, Analysis and Solving:

Participants to be able to:-

- (a) Identify and analyze major problems within the community.
- (b) Lay strategy in solving problems.
- (c) Demonstrate their skill in solving community problems.

2. Water and Hygiene Education for Mothers and Children:

Participants to be able to:-

- (a) Explain the major causes of world sickness and diseases with particular reference to water.
- (b) Explain how lack of, or improper use of, sanitary facilities can be a source of disease transmission and practical preventive measures.
- (c) Explain the importance of hygiene education to women and children in curbing disease transmission and general sanitary practices at the water points and at home.

3. Aims and Objectives of the Operation and Maintenance Department Of KFWWSP:-

Participants to be able to:-

- Present
- (a) Explain the main sectors of the KFWWSP during the implementation phase.
 - (b) Define the main objectives of the operation and maintenance department in relation to hand pump repair.
 - (c) Explain the maintenance procedure of the hand pumps and the importance of preventive maintenance.
 - (d) Discuss advantages and disadvantages of the users repairing their own hand pumps.

TECHNICAL AWARENESS:

4. Hand Pump Parts and Their Mode of Function:

Participants to be able to:-

- (a) Name particular hand pump parts for a given hand pump.
- (b) Demonstrate the mode of working of the hand pump and proper

- use of the hand pump.
- (c) List the major parts of a given hand pump and their approximate cost.

5. Tools and Hand Pump Parts Necessary All the Year Round:

Participants to be able to:-

- (a) Name and draw the tools that are required in the operation and maintenance of the hand pump.
- (b) List the hand pump parts that the community requires ready each year and the faults they may correct.
- (c) Discuss the availability and the proper storage of the tools and spares for faster operation and maintenance of hand pumps.

6. Hand Pump Assembling, Dismantling and Re-assembling:

Participants to be able to:-

- (a) Practice dismantling and assembling the hand pump - first in a larger group and then (individually) smaller groups.
- (b) Determine the number of stages/steps in dismantling and assembling the hand pump.

7. Common Faults, Fault Finding and their Remedies:

Participants to be able to:-

- (a) Detect common faults on hand pumps.
- (b) Practice rectification of the faults.
- (c) List the common faults on hand pumps.
- (d) Discuss the requisite preventive maintenance to be practiced by the well committee in particular and the consumers in general.

8. Hand Pump Performance Report and Duty Roster Establishment for Sanitary Upkeep:

Participants to be able to:-

- (a) Fill in the hand pump performance report correctly.
- (b) Discuss the bad Sanitary conditions that need to be

- routinely checked at water points.
- (c) Prepare a duty roster for good sanitation by the well site.
 - (d) Demonstrate proper sanitary care for the water point.

ECONOMIC AWARENESS:

→ 9. Funds Collection and Records Keeping:

Participants to be able to:-

- (a) Describe the various roles of the water point committee with special reference to the pump attendant.
- (b) Name the various methods of funds collection and importance of funds collection.
- (c) Explain the control measures to be practised in ascertaining safety of funds and the necessary types of records.
- (d) Discuss the importance of group registration in funds collection.

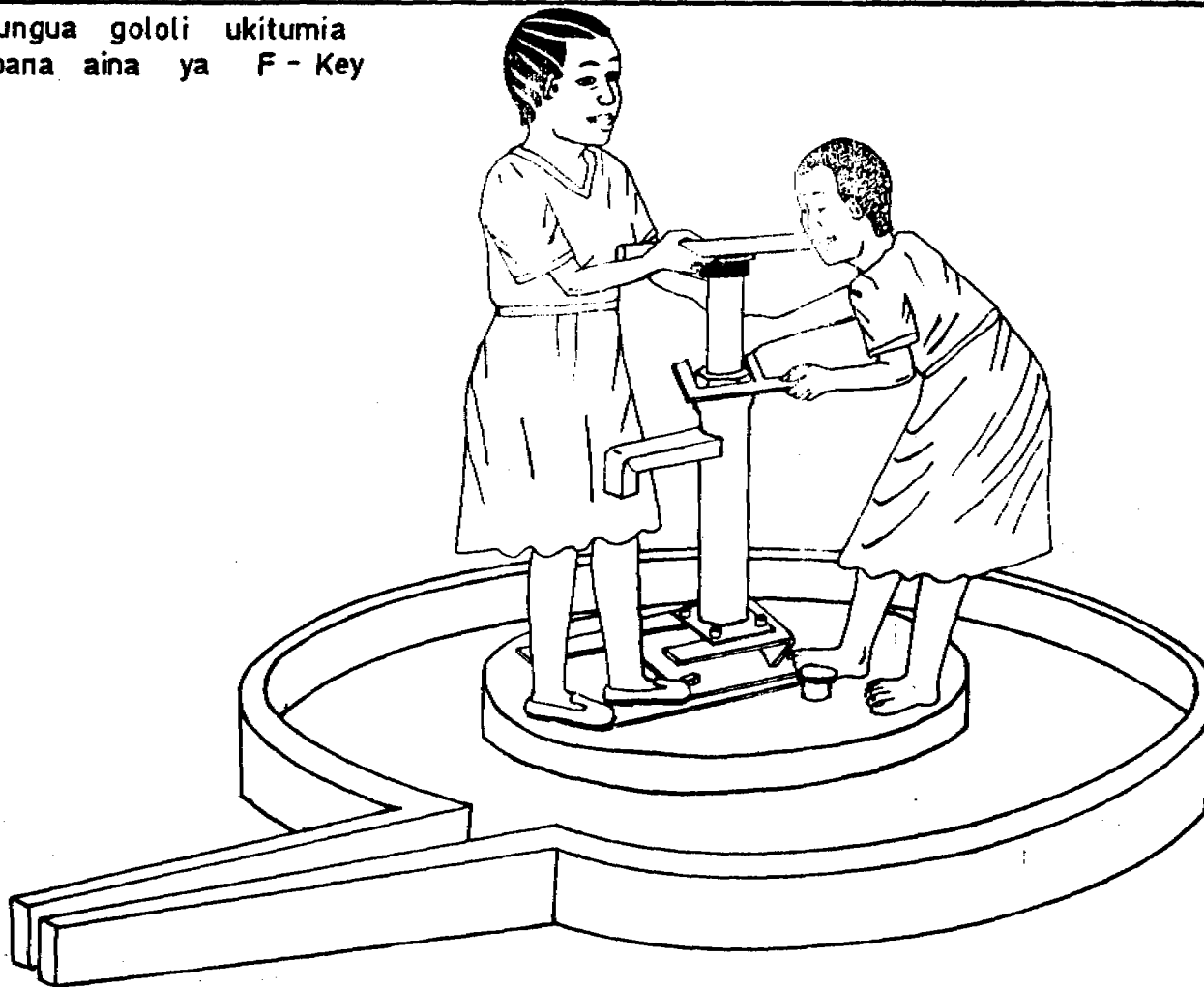
10. Economic Development By The Well Site and Appropriate Fencing:

Participants to be able to:-

- (a) Determine the kind of economic development that could be initiated by the water point.
- (b) Discuss the steps in acquiring space for economic developments.
- (c) Discuss the importance of fencing and appropriate fencing materials to be used.

DISMANTLING AND REPAIR MANUAL FOR NIRA AF85

Fungua gololi ukitumia
spana aina ya F - Key

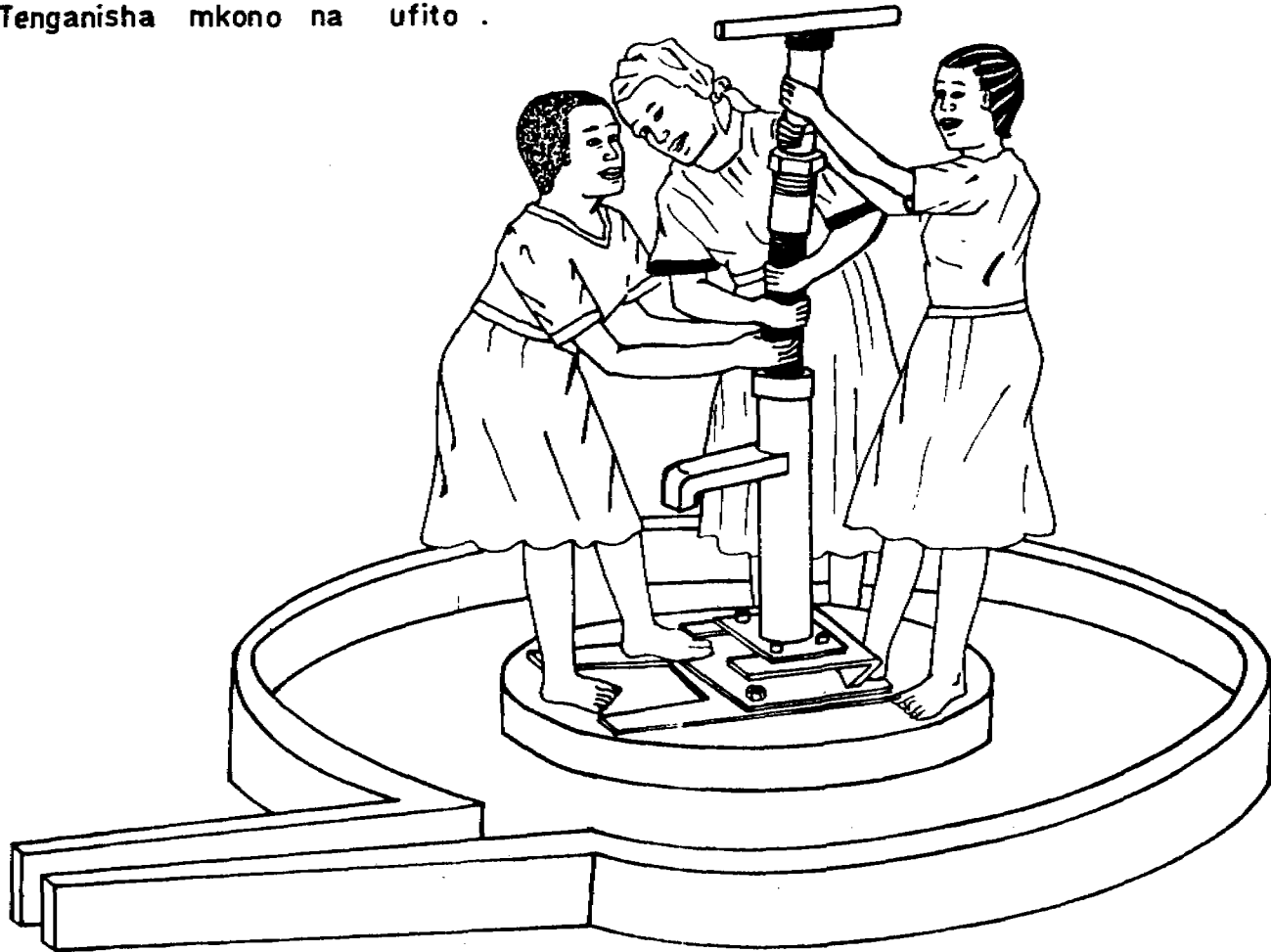


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1



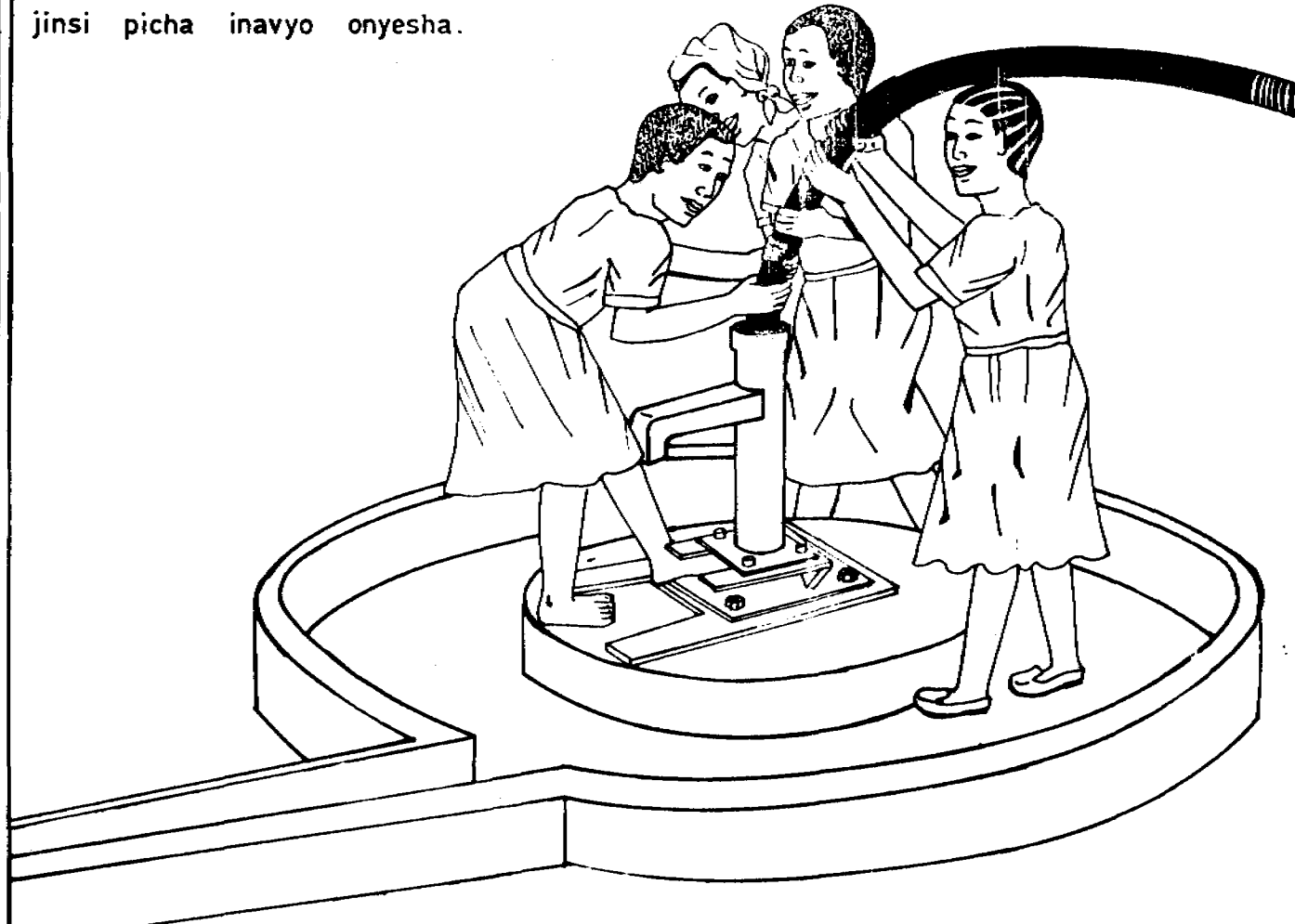
Tenganisha mkono na ufito .

ii



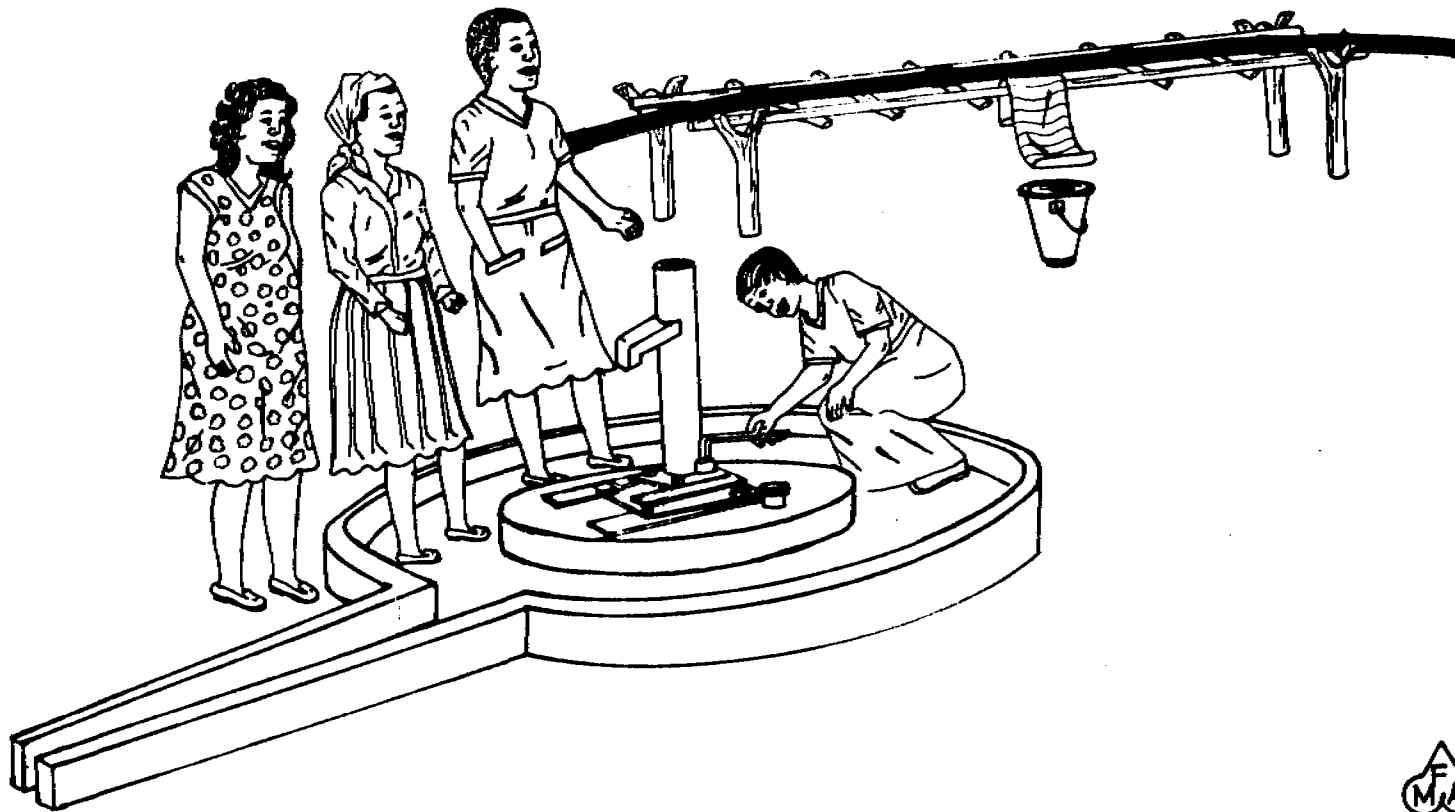
Nyanyua fito kutoka bombani
jinsi picha inavyo onyesha.

XVII
iii



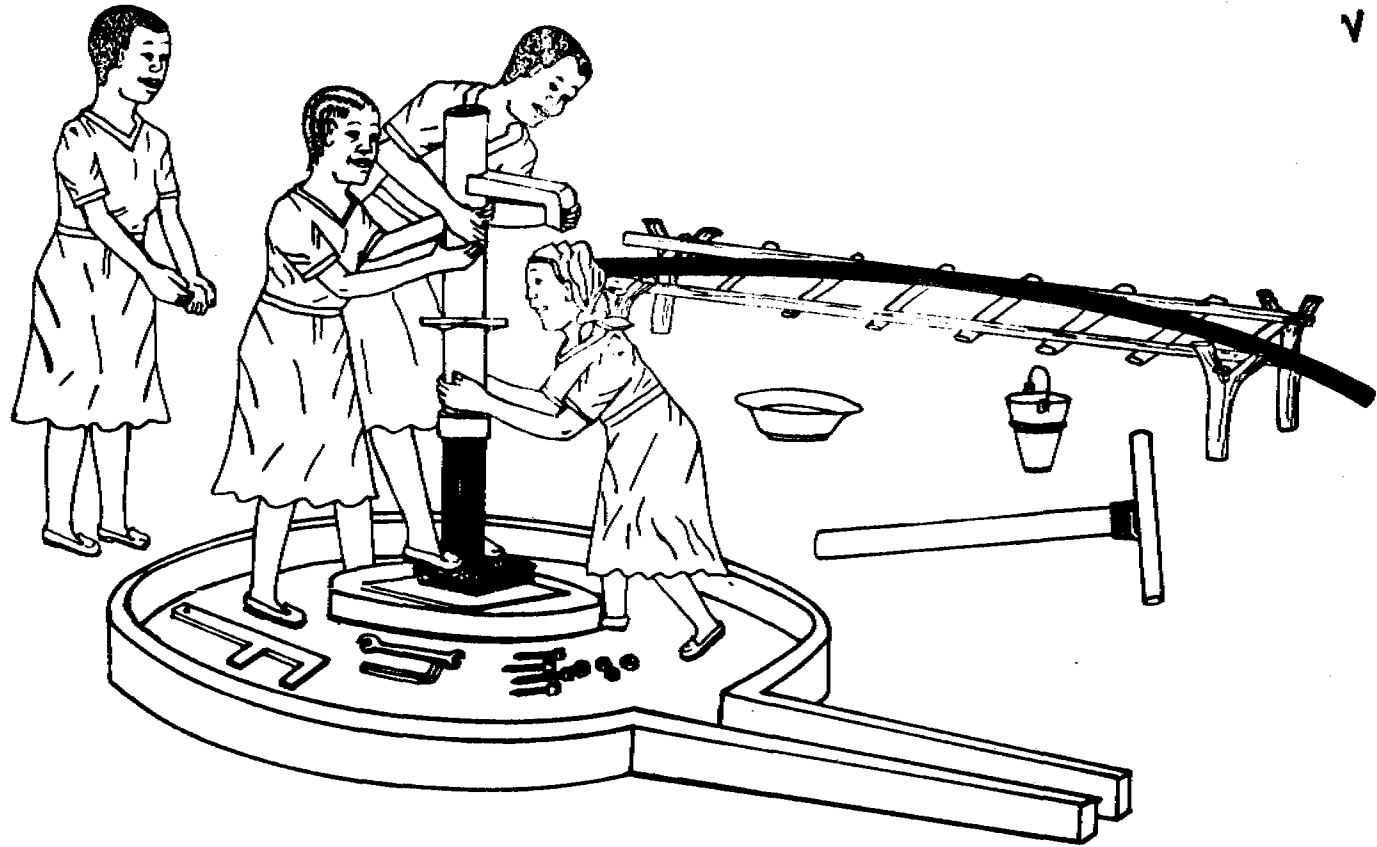
Funga bolti na nati – usisahau washeli ,
tumia Allan key milimita kumi (10mm).

xviii
IV



Vuta bomba inje, fungua
kisimamisho kutoka kwenye mwanzil

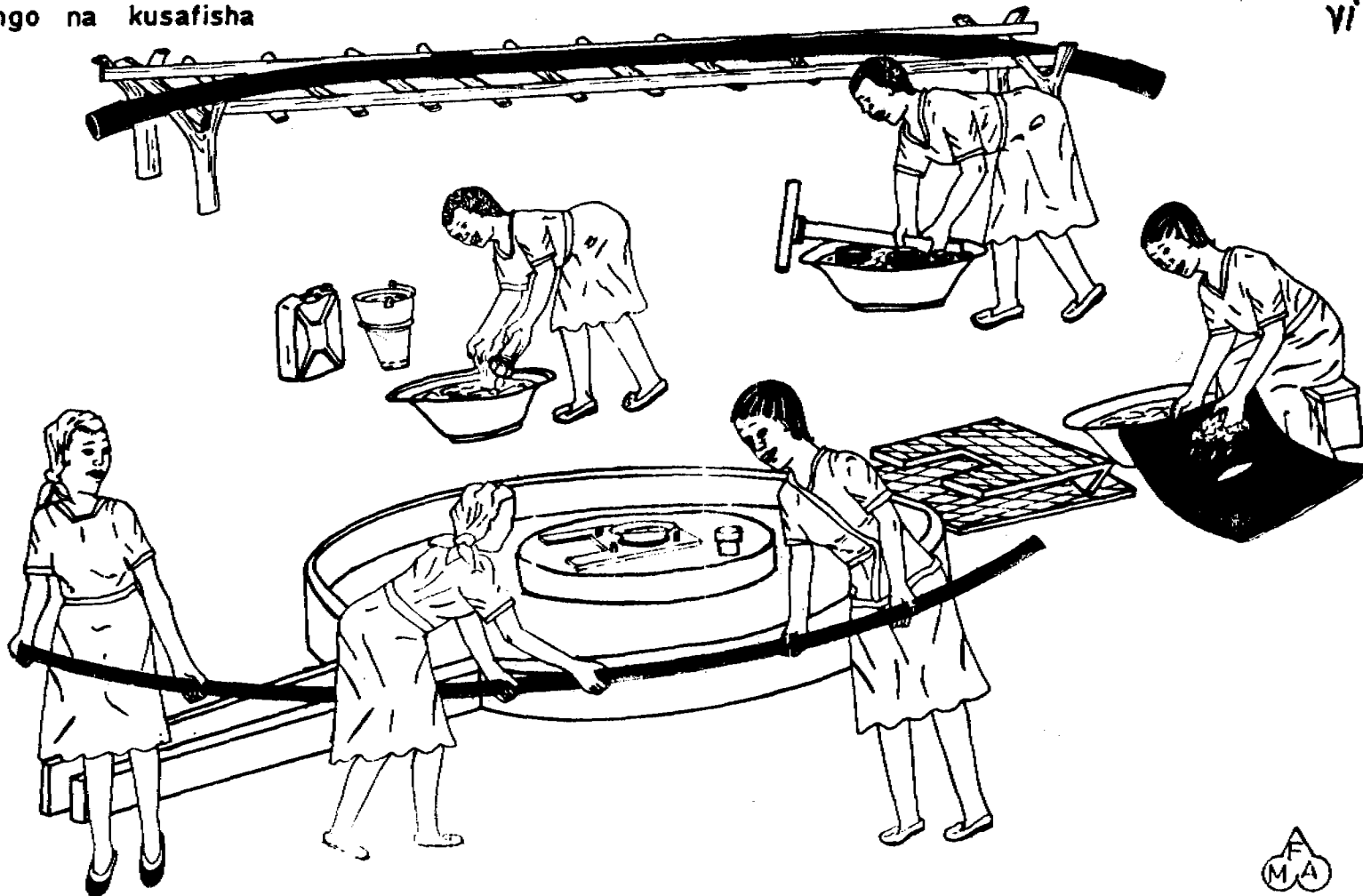
v



MIA

Angalia makosa kwa
viungo na kusafisha

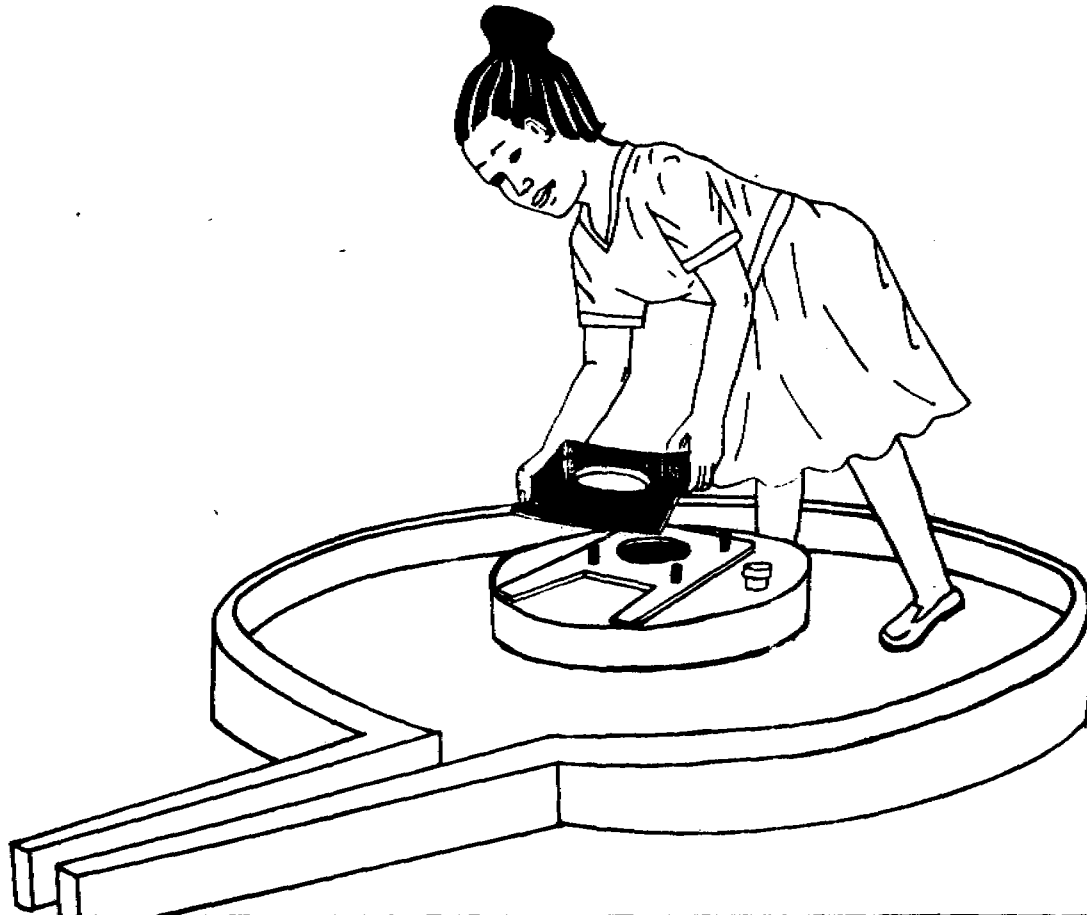
xxi
VI



JINSI YA
KUSIMIKA (INSTALL)
BOMBA AINA
YA NIRA AF 85

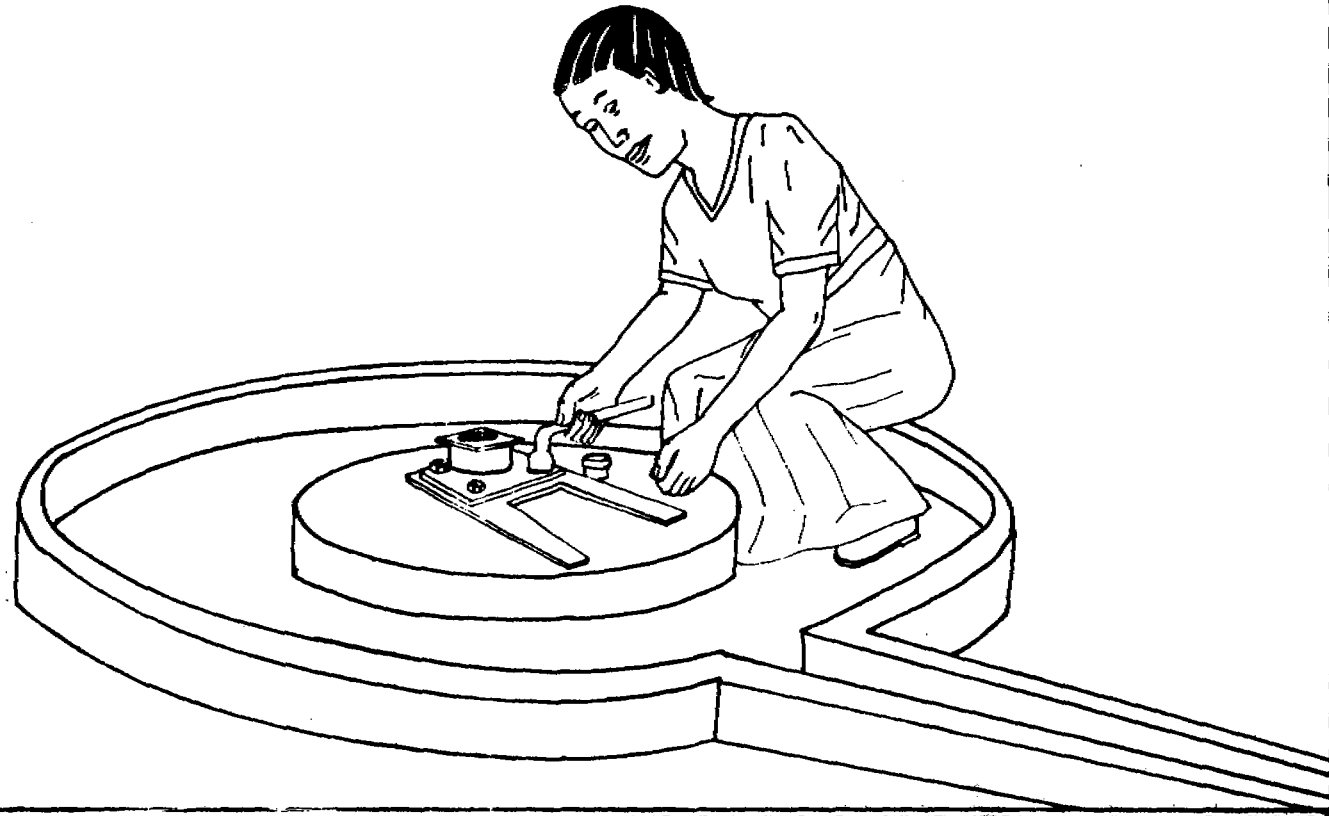
Weka gasket — valisha
tundu za bolti.

Vii.



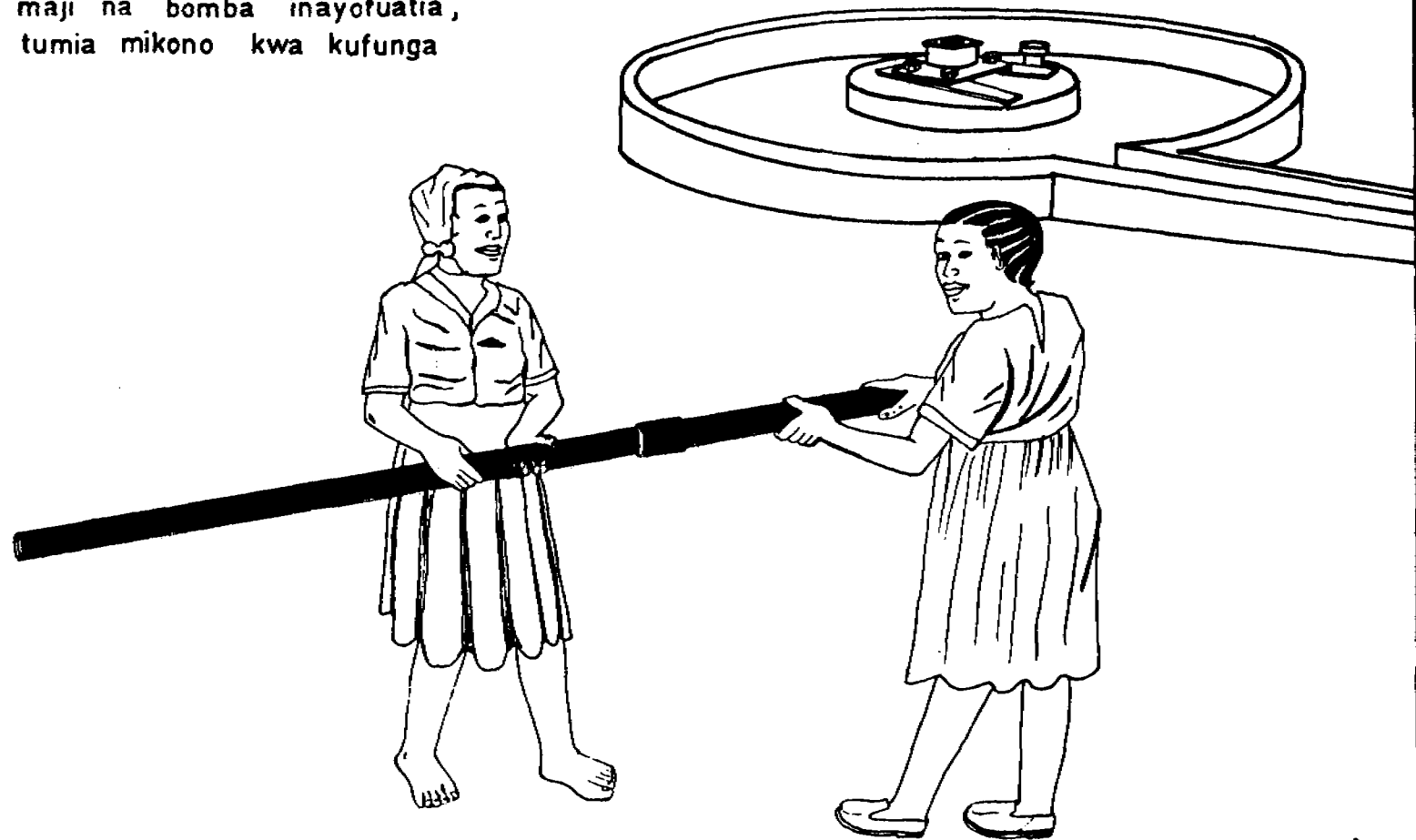
Funga nati za anchor bolts
usisahau washeli.
Tumia combination spanner milimita
kumi na tisa (19mm).

~~VIII~~
IX



Uganisha bomba la kuvuta
maji na bomba inayofuatia,
tumia mikono kwa kufunga

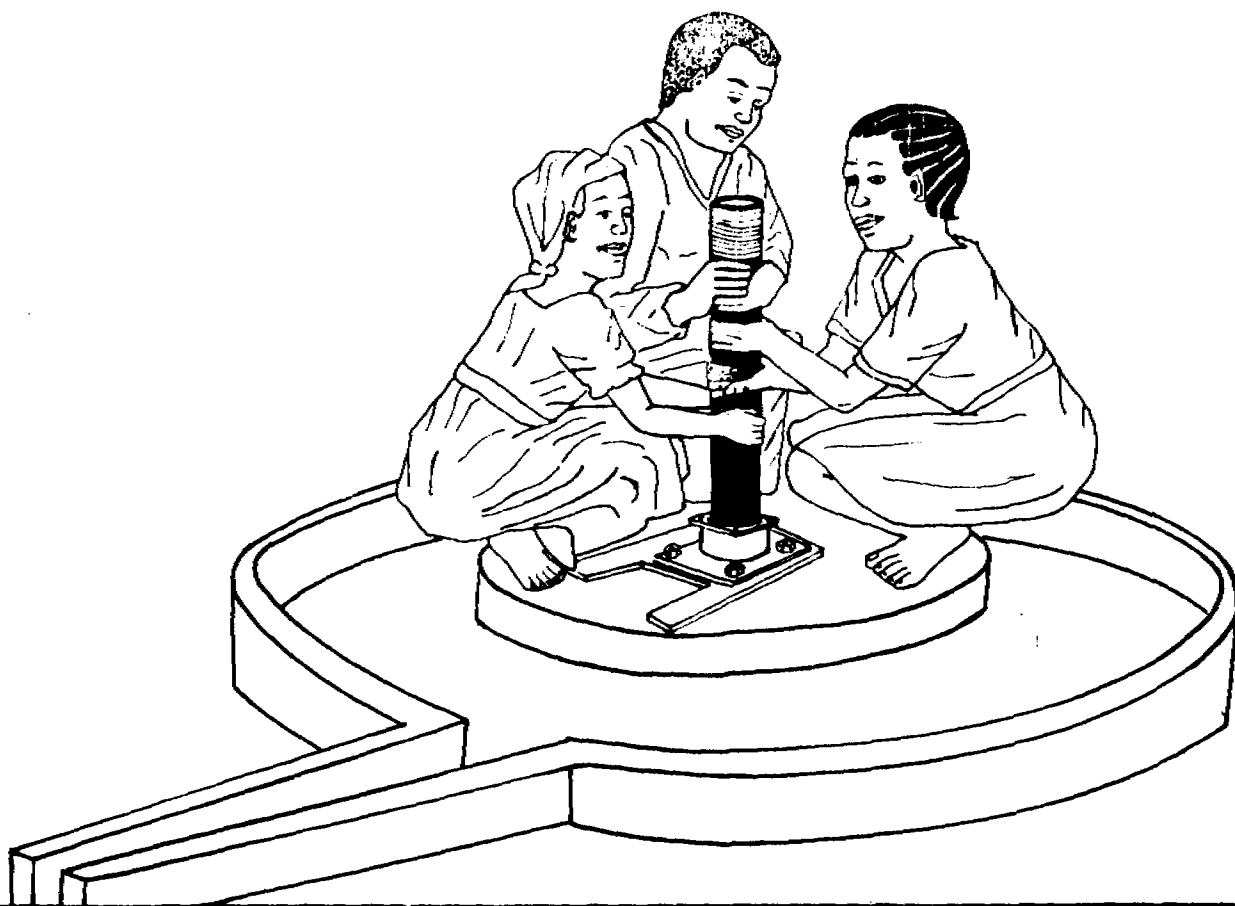
X-17



FA

Tumbukiza bomba ulizounganisha
ndani ya kisima.

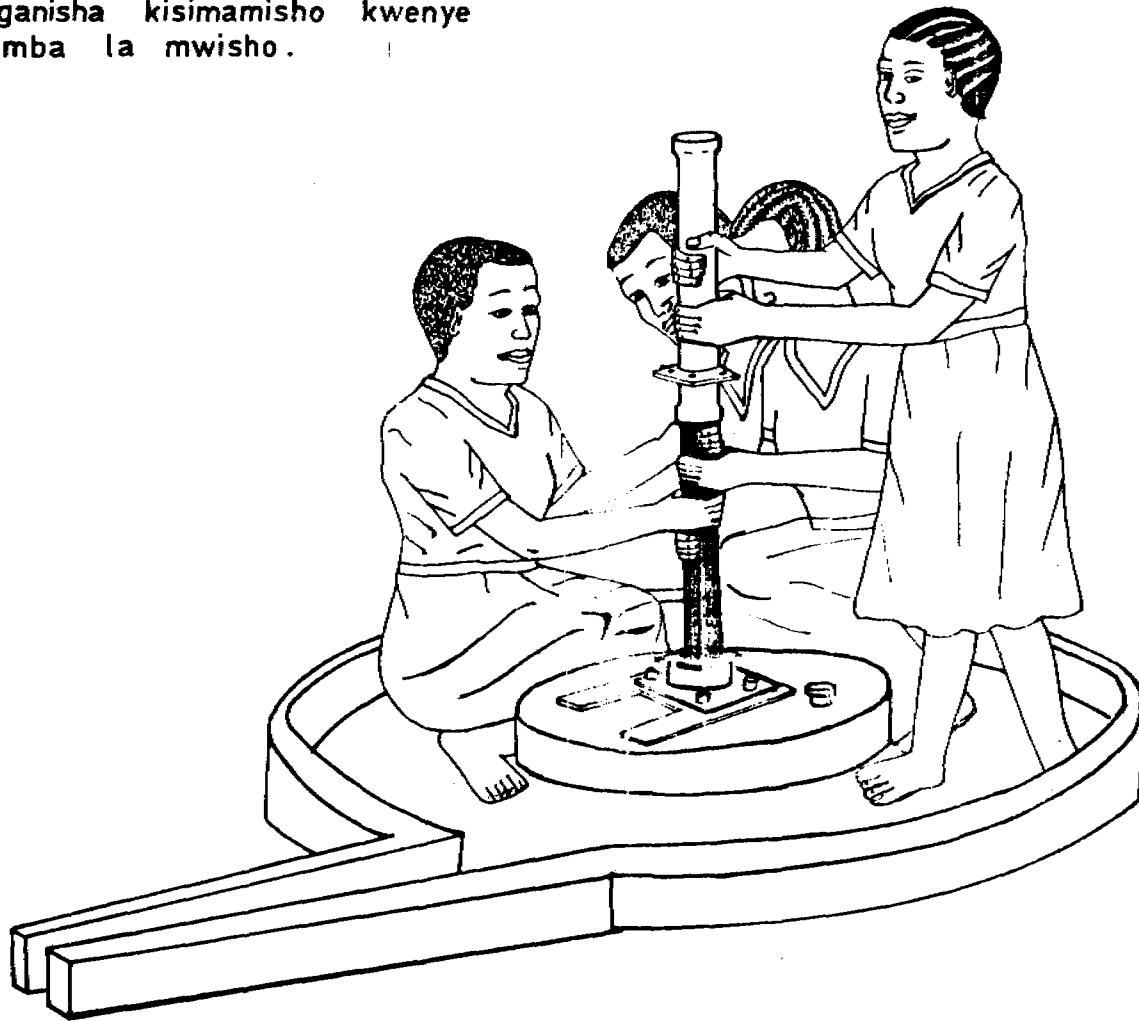
(xi)



MA

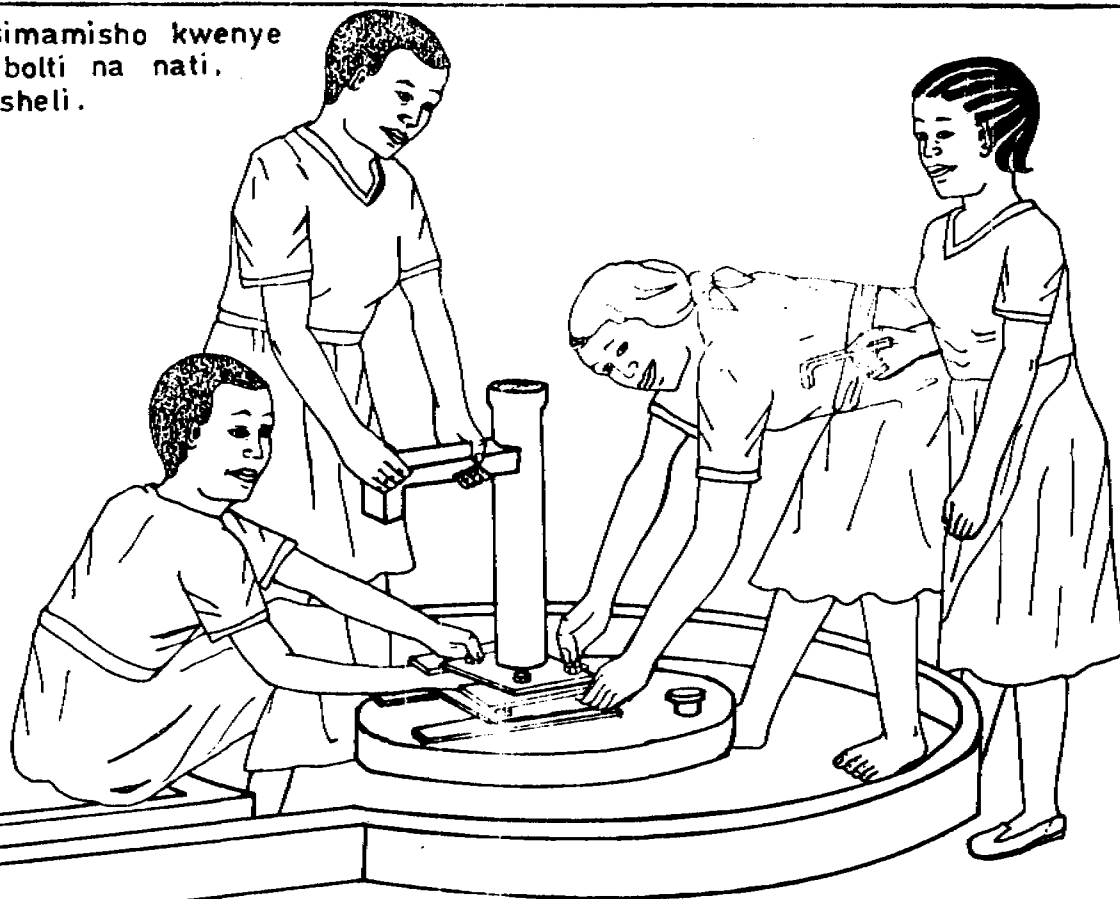
Uganisha kisimamisho kwenye
bomba la mwisho.

(xi)



Uganisha kisimamisho kwenye
kisahani na bolti na nati.
usisahau washeli.

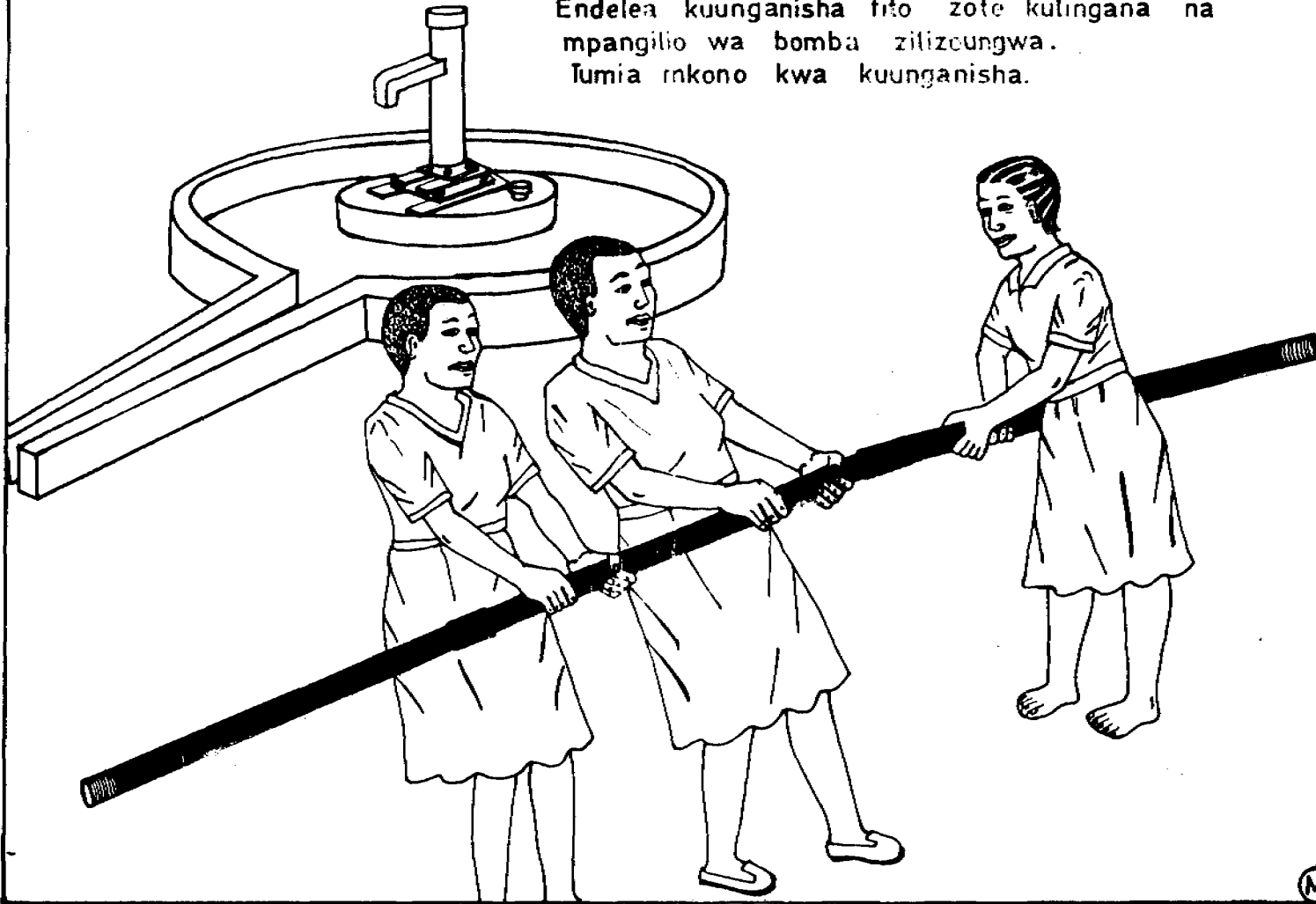
(Xiii)



MFA

Endelea kuunganisha fito zote kulingana na
mpangilio wa bomba zilizeungwa.
Tumia mkono kwa kuunganisha.

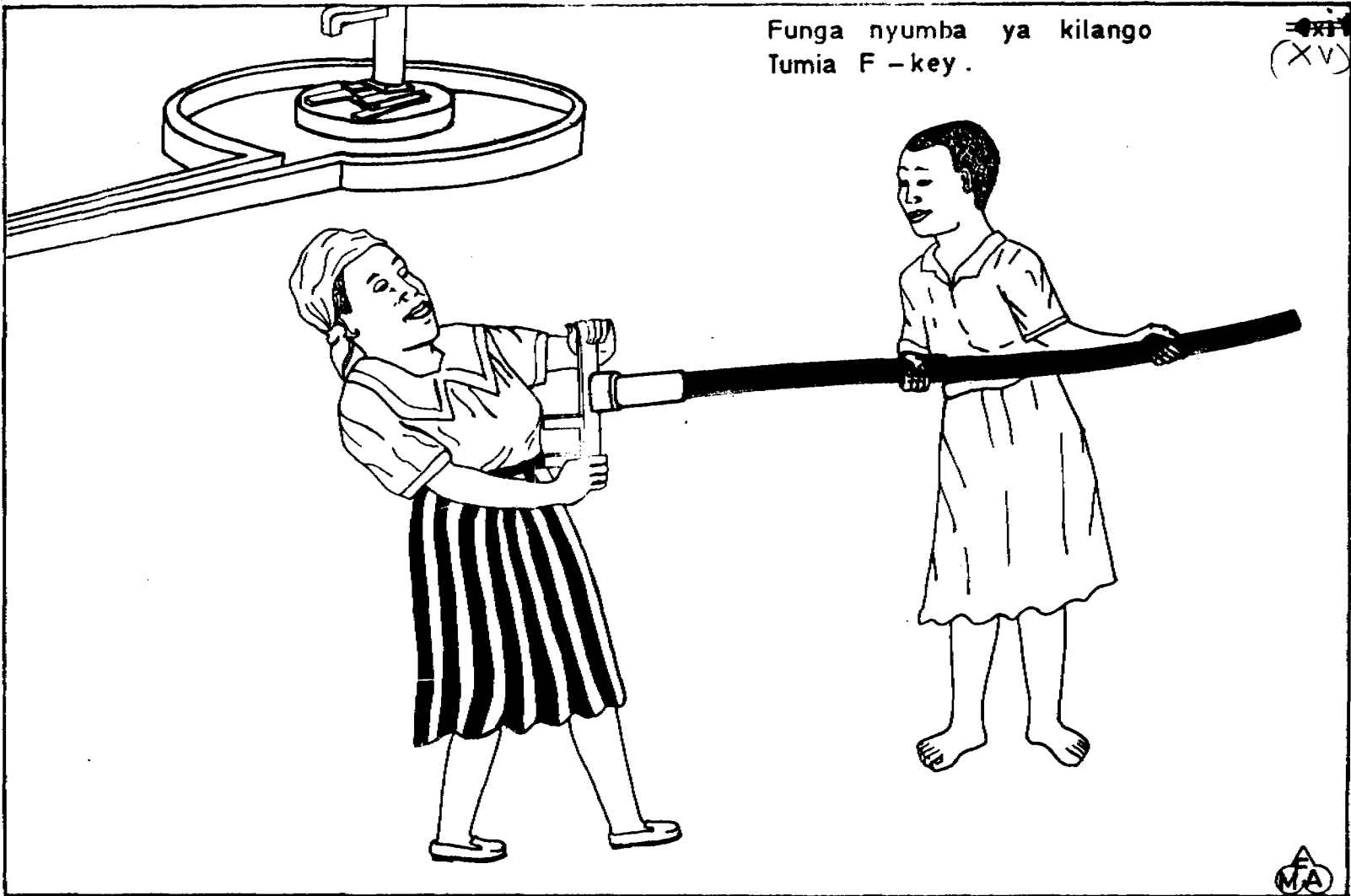
(xiv)



F
MIA

Funga nyumba ya kilango
Tumia F-key.

XVI
(XV)



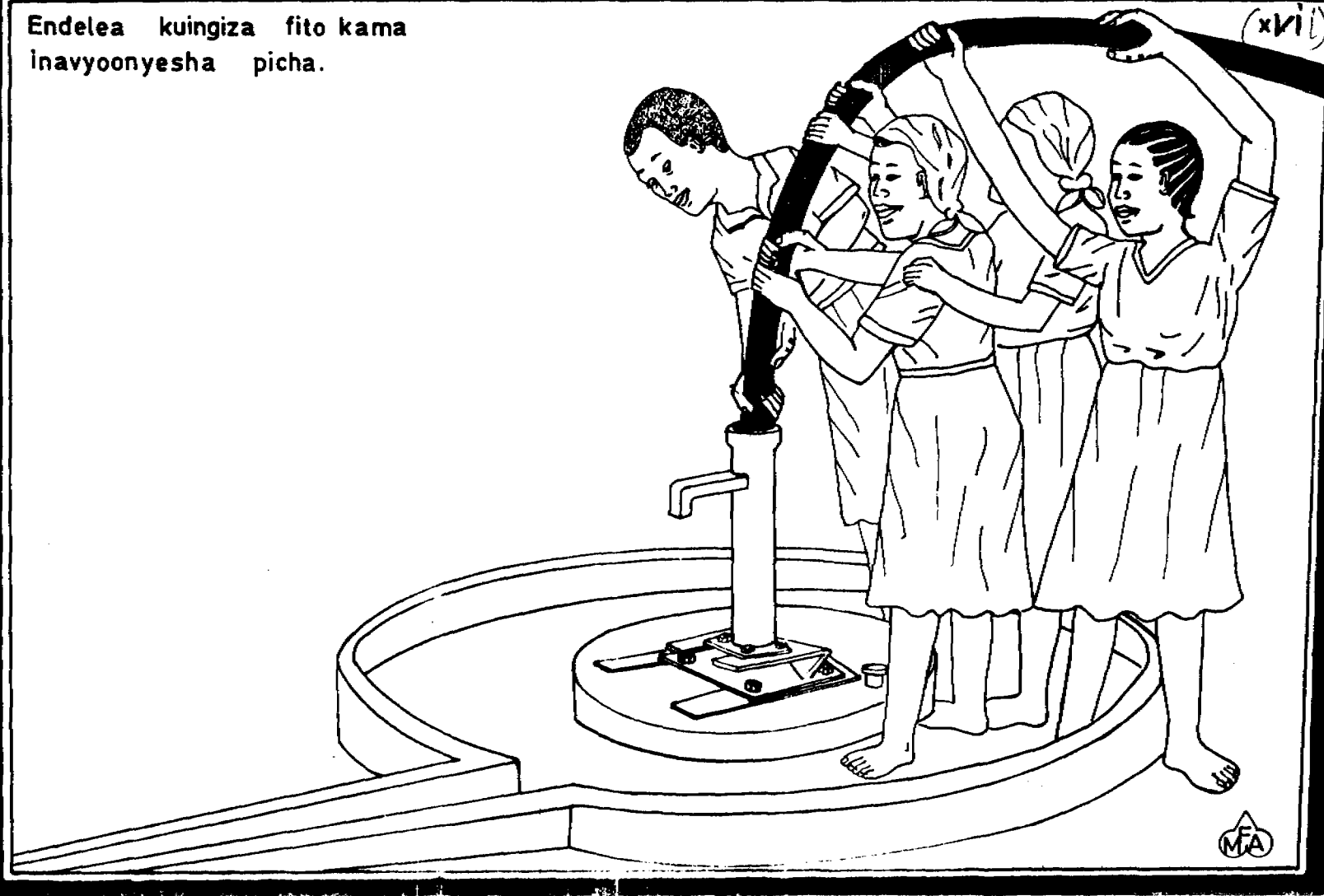
MA

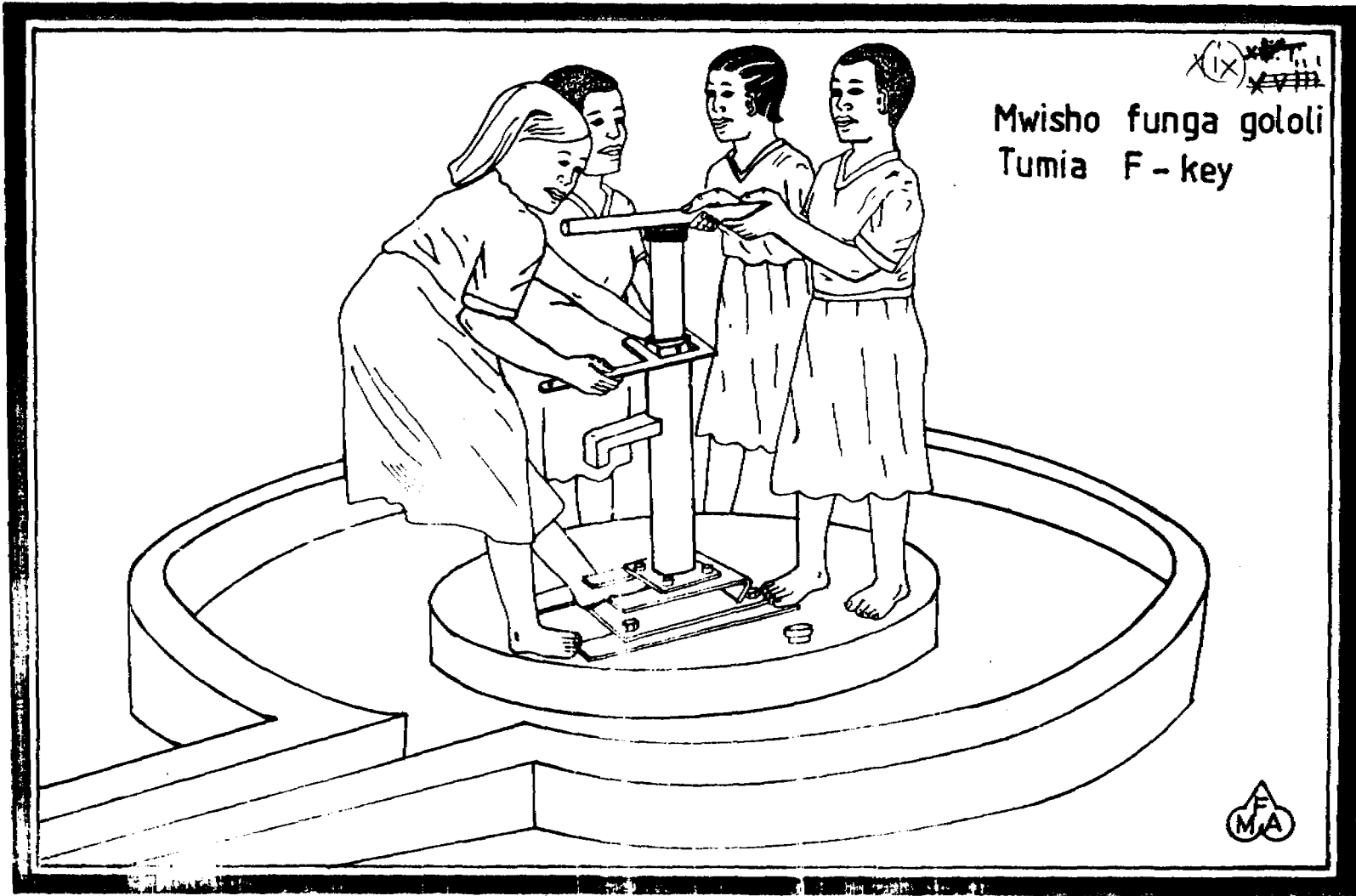
Nyanyua fito zote na ingiza
ndani ya bomba ukitangulia pistonni.

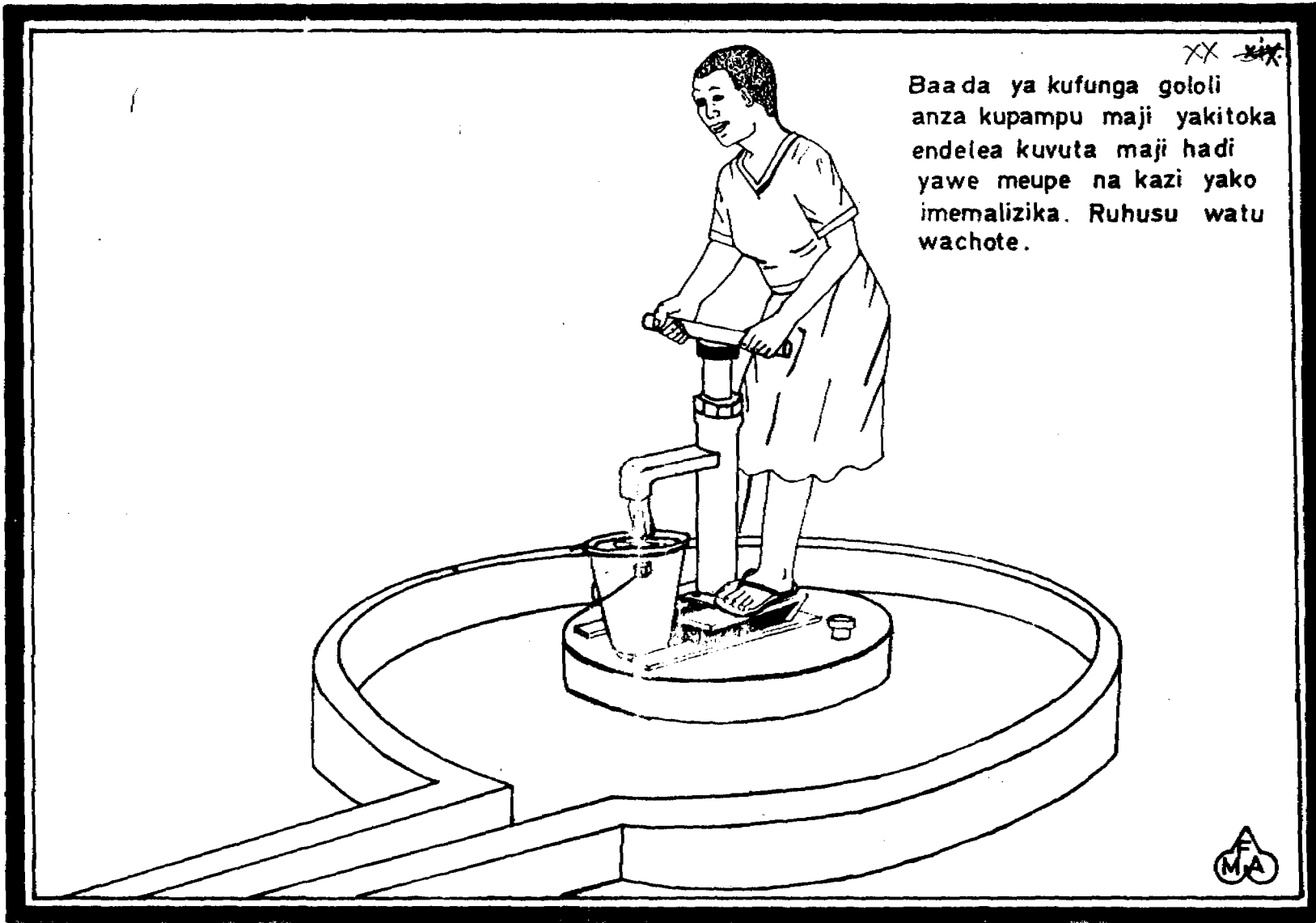
(x.VI)



Endelea kuingiza fito kama
inavyoonyesha picha.





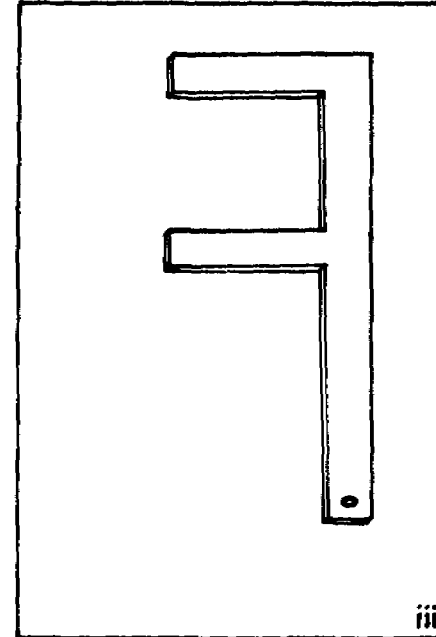
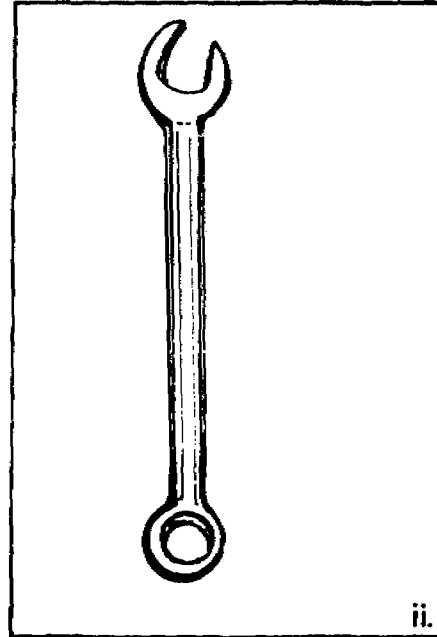
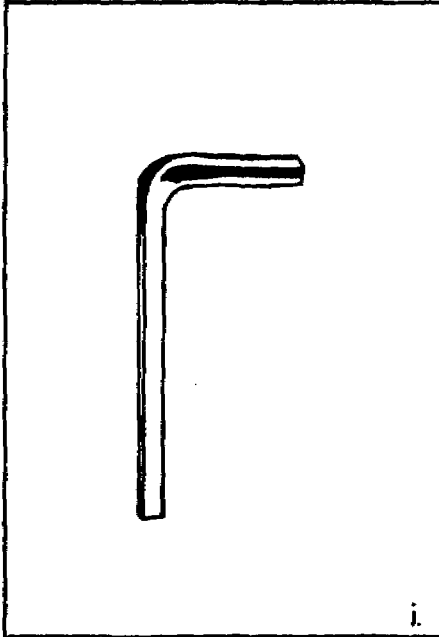


XX ~~XIX~~

Baada ya kufunga gololi
anza kupampu maji yakitoka
endelea kuvuta maji hadi
yawe meupe na kazi yako
imemalizika. Ruhusu watu
wachote.



~~XXXI.~~
(XXI)



Zana za matengenezo majina kutoka kushoto :-

- i. Allen key. 10mm
- ii. Combination spanner. 19mm
- iii. F- Key.



PUMP ATTENDANTS' QUARTERLY MONITORING FORM:

IMPORTANT THINGS ~~TO REMEMBER~~ FOR THE PUMP ATTENDANT.

1. Check that you have a pen, record note book, an inspection sheet and a hand pump inspection repair manual.
2. Carry a 20 litre measure jerrican or bucket.
3. Repair tools (see hand pump repair manual)
4. String for depth measure - weight at the end of it.
5. The monitoring form should be filled quarterly i.e. after 3 months.
6. You should give the water quality officer this form to sign when he visits.

PUMP ATTENDANTS' QUARTERLY MONITORING FORM

NAME

ADDRESS

INSPECTION DATES/...../...../19..

WELL NUMBER

HAND PUMP TYPE

	MONTHS			
1. Is the hand pump firmly anchored?				
2. Is the hand pump working?				
3. What is the waiting time before 20 litres water can be pumped out?				
4. What is the depth of the water in the well?				
5. How many full strokes fill 20 litres?				
6. What colour is the water?				
7. Is there a duty roster for well site cleanliness?				
8. Is there rules to encourage good behaviour during use and care of the well?				
9. Is the drainage clear?				
10. Is there a proper fence?				
11. Is the well cover in good state?				
12. Is the well slab cracked?				
13. Does the water have peculiar taste or smell?				

	MONTHS			
14. Is there protection from surface run-off?				
15. Is there stagnant water 10m from the well?				
16. Is there a latrine within 50m of the well?				
17. Is the nearest latrine on the upper side of the well?				

INSPECTION COMMENTS/REMARKS

WATER QUALITY OFFICER'S INSPECTION COMMENTS

DATE	NAME	PURPOSE/REMARKS	SIGNATURE

→
Remark

ADVISORY NOTES

WHAT TO CHECK (FAULTS)	WHAT TO DO (CORRECTION)
1. If the hand pump is not firmly anchored	Tighten the anchor bolts and screws
2. If the hand pump is not working	<u>First</u> report to the well chairman.
3. If the users wait for over one hour to get (20 litres) water home.	<u>Second</u> make necessary arrangements to inspect the faults.
4. If the difference in the full number of strokes to get 20 litres is more than 10 from the initial.	<u>Third</u> make arrangements for the appropriate spares if repair is needed.
5. If the well cover and slab are in bad condition i.e. with cracks.	<u>Fourth</u> use the repair manual for the hand pump to do the service and repair.
6. If there are no rules governing good behavioural use and care	Together with the well committee,
7. If there is no duty roster for well site sanitary up-keep	a) make rules to govern proper use. b) Design a duty roster for proper sanitary upkeep.
8. If the drainage is blocked	a) Alert the well committee officials.
9. If the cover slabs and well surrounding are dirty.	b) Mobilize the relevant people for the cleaning and fencing. Stress is on the living fence.
10. If the fence is missing.	b) Mobilize the relevant people for the cleaning and fencing. Stress is on the living fence.
11. If the water has a peculiar colour.	Report to the nearest Water Quality Officer.
12. If the water has an unusual taste/smell.	Report to the nearest Water Quality Officer.
13. If the depth of the water in the well is less than 1 metre.	Report to the nearest Water Quality Officer.

WHAT TO CHECK (FAULTS)	WHAT TO DO (CORRECTION)
14. If there is no protection from surface run-off.	Report to the nearest water point sanitary inspector and the nearest public health technician for proper guidance.
15. If there is stagnant water within 10m from the well.	
16. If there is a latrine within 50m from the well.	
17. If the nearest latrine is on the upper side of the well	