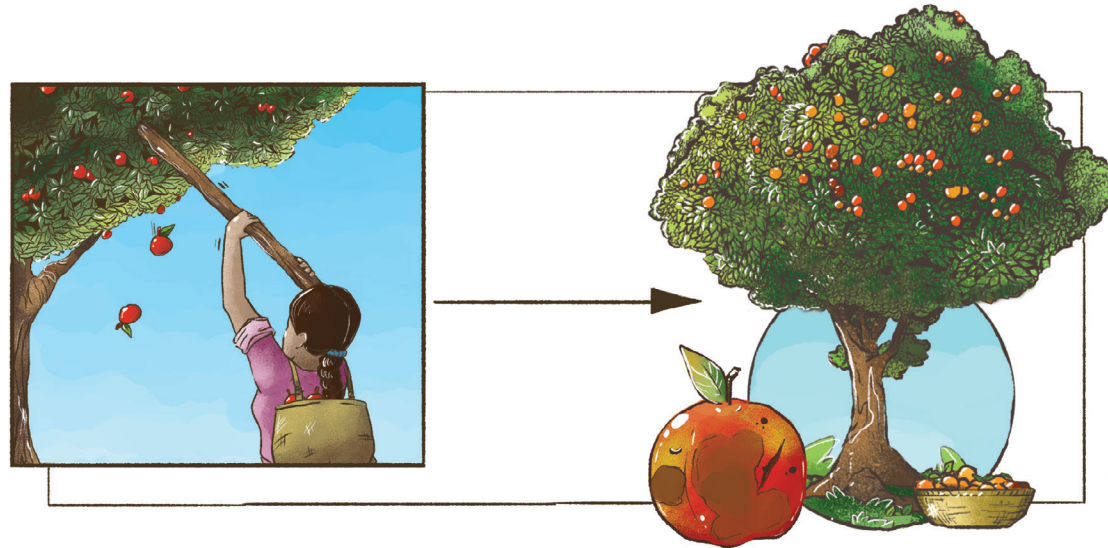
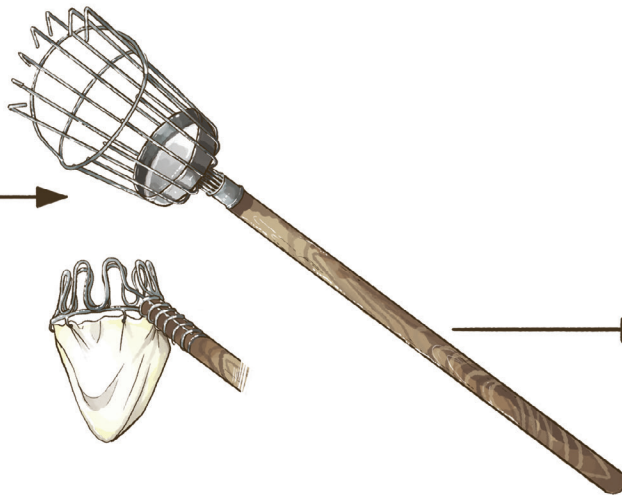


Lesson: New tool to harvest tree fruits without climbing trees

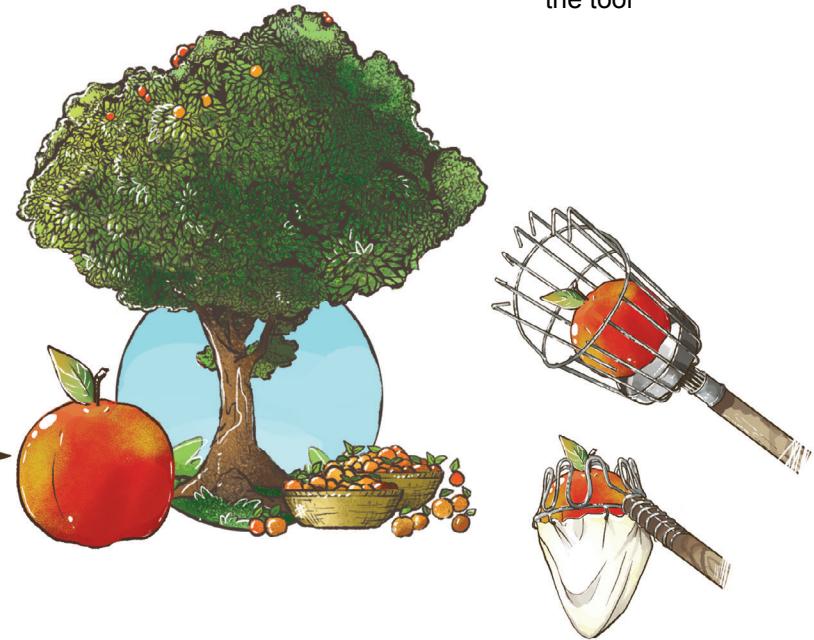
1. Traditional practice



2. New practice: purchase tool from vendor

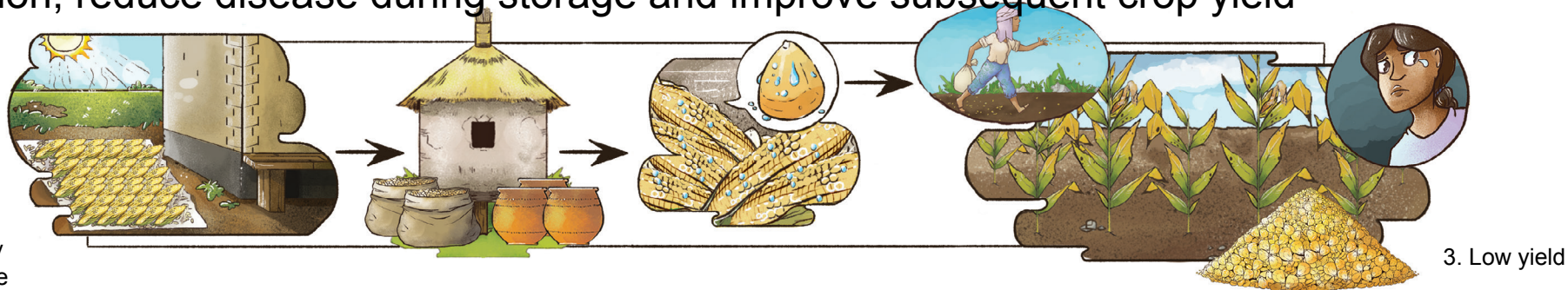


3. Pick fruit using the tool



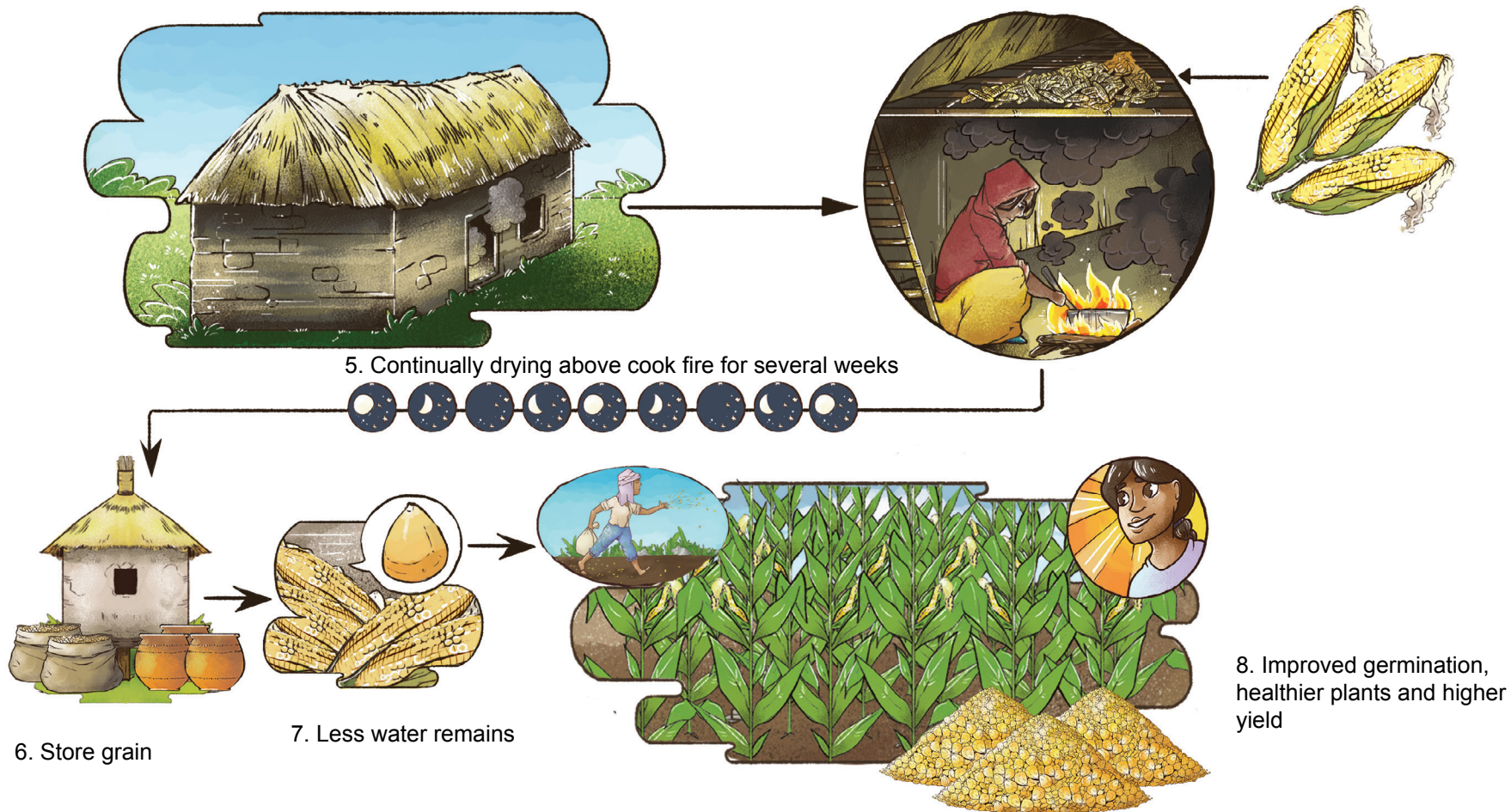
Lesson: Drying seeds prior to storage above the cooking fire will improve subsequent germination, reduce disease during storage and improve subsequent crop yield

1. Traditional practice is to sun dry only prior to storage



2. Some moisture remains which promotes molds and insects

4. Improved practice is to additionally dry seeds above cooking fire

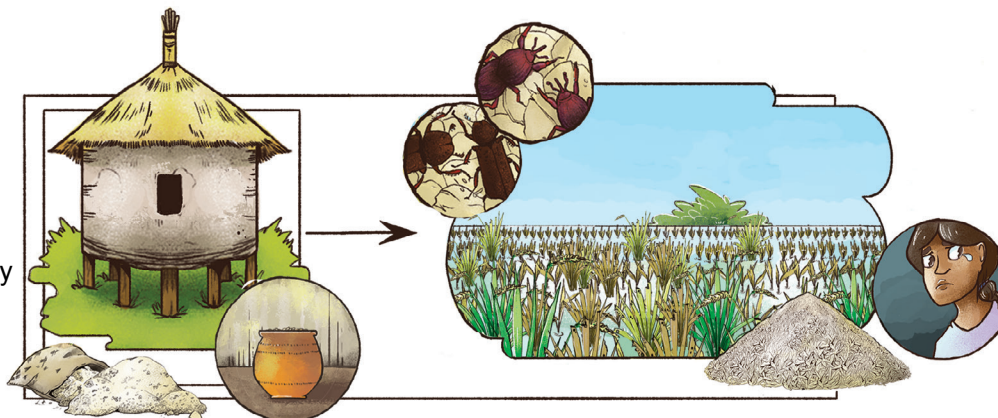


6. Store grain

7. Less water remains

Lesson: Neem tree leaves fight pests during grain storage

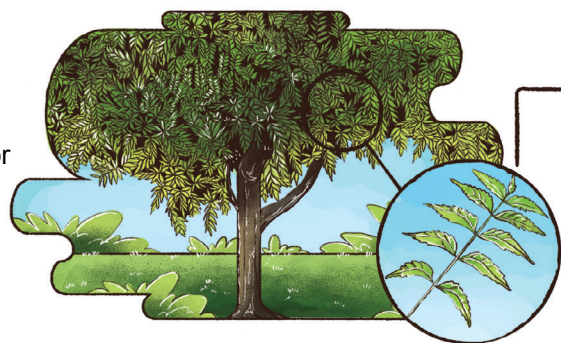
1. Traditional problem: stored grain is damaged by insects during storage.



2. When sown, the damaged seeds produce low yields

3. Improved practice

4. Grow or find neem trees



5. Collect neem leaves



6. Add leaves to granary as a layer



7. Add newspaper layer



8. Add grain layer



9. Repeat newspaper



10. Repeat neem leaves



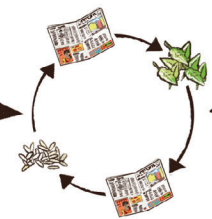
11. Repeat newspaper



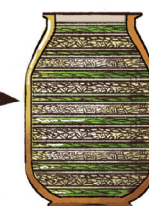
12. Repeat grain



13. Repeat newspaper



14. Repeat layering until granary is full



15. Store grain



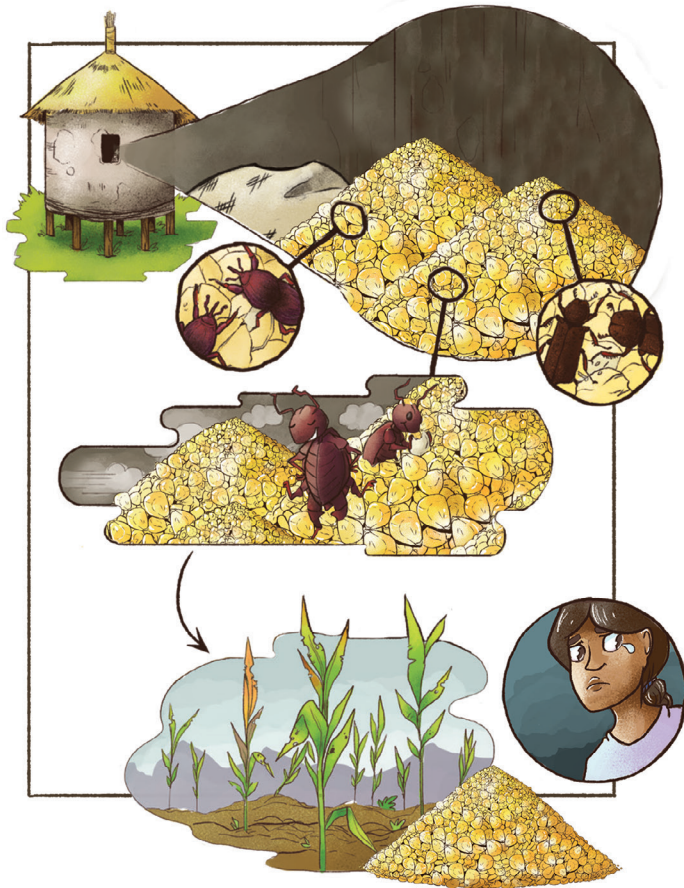
16. Less insect damage



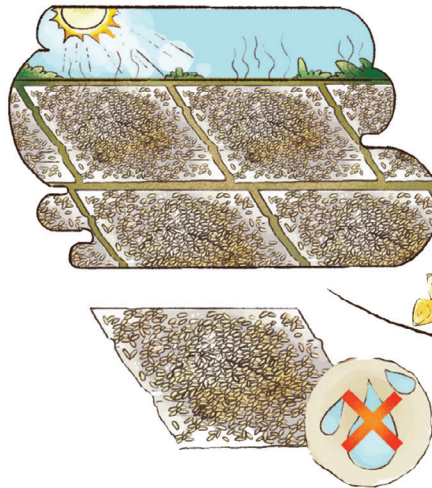
Lesson: Special bags can be used to store grain which reduce oxygen inside bag which prevents insects and fungal molds from surviving, which also reduces toxins.

2. New practice

1. Traditional practice: stored grain is damaged by insects and mold. The mold can produce toxins in the grain.



3. Dry grain completely

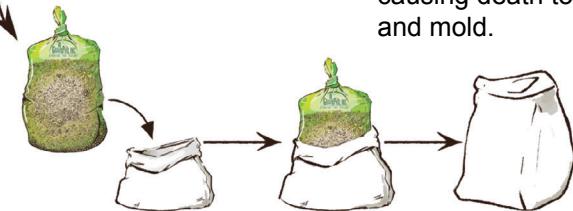


4. Purchase bag from vendor. Put grain in bag, remove air and tie.

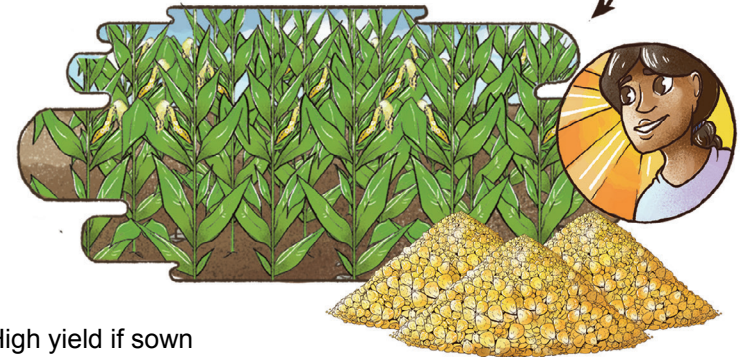


6. Special bag causes air to flow outside, causing death to insects and mold.

5. Put bag inside a jute bag. Elevate from ground if possible to prevent rodents.

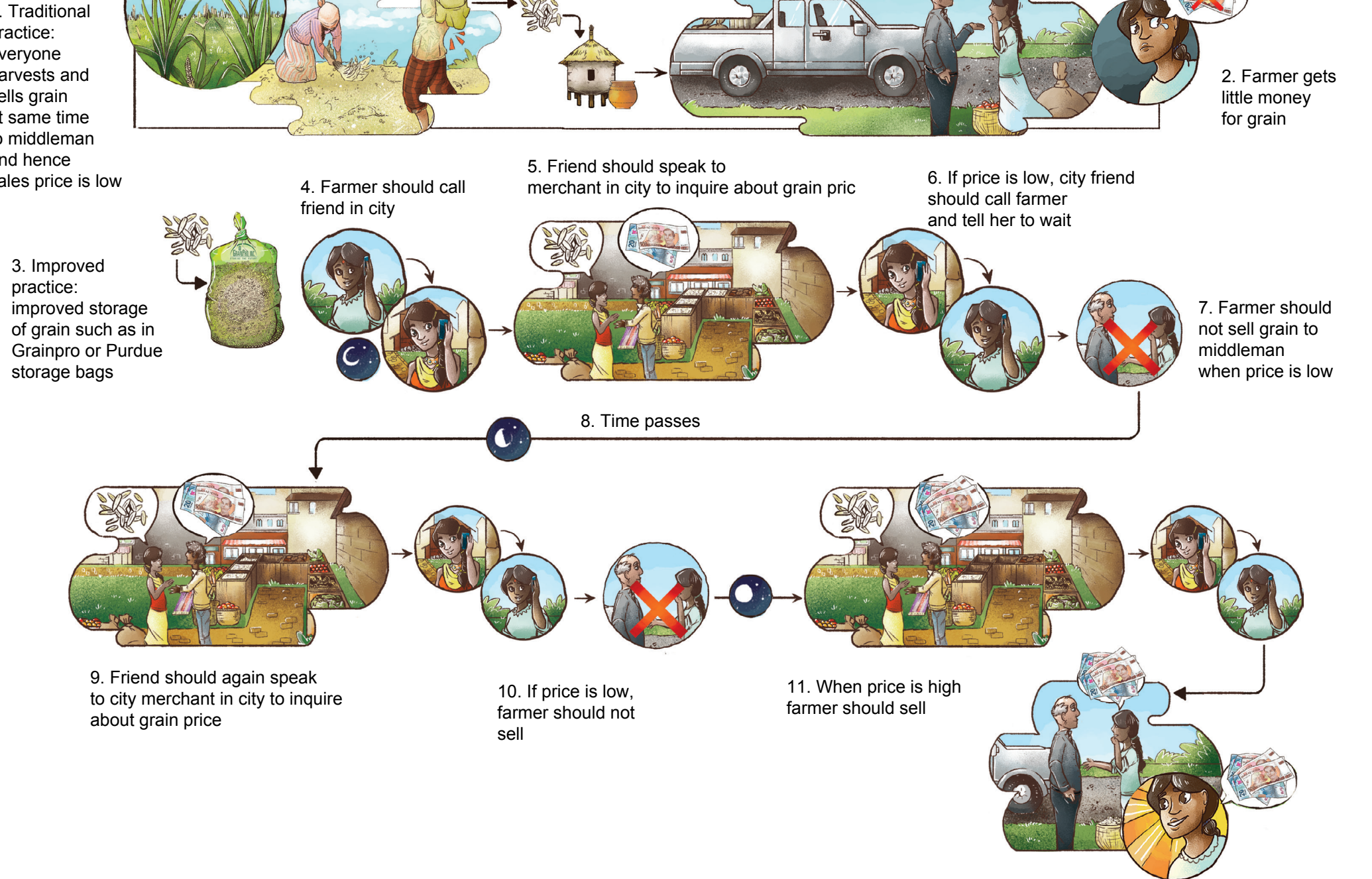


7. High yield if sown and less toxins in food.



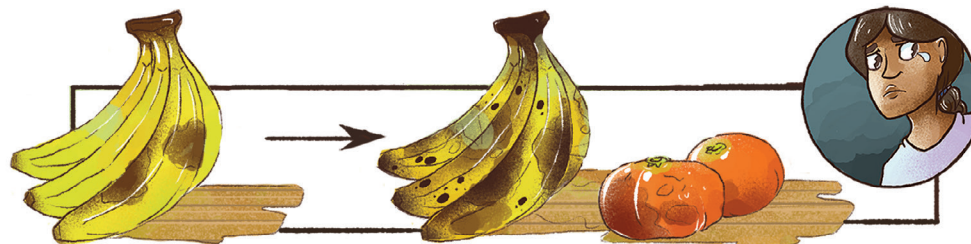
8. Re-use bag many times.

Lesson: Improved storage of grain permits selling of grain when prices are higher, especially when combined with asking for help from a friend who lives in the nearby city

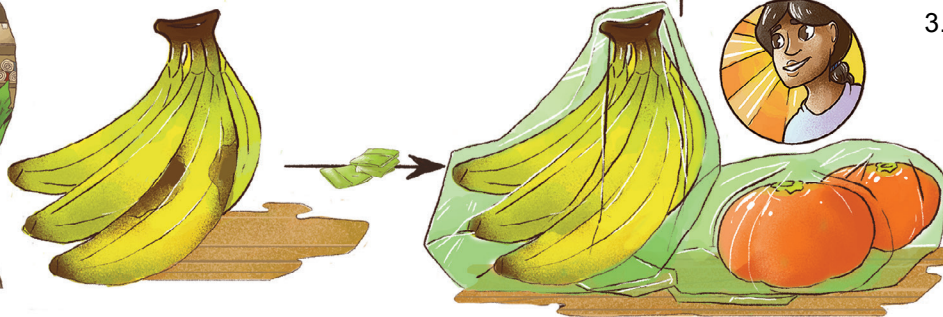


Lesson: Special small green bags may prevent fruits and vegetables from spoiling/ripening too fast

1. Traditionally, fruits/vegetables spoil quickly: when one fruit/vegetable starts to ripen, it releases a gas which causes nearby fruits/vegetables to ripen



2. New practice: purchase an anti-ripening bag from vendor. The bag stops the gas that promotes ripening, preserving the fruits/vegetables for a few more days.



3. Bags are dirty after use



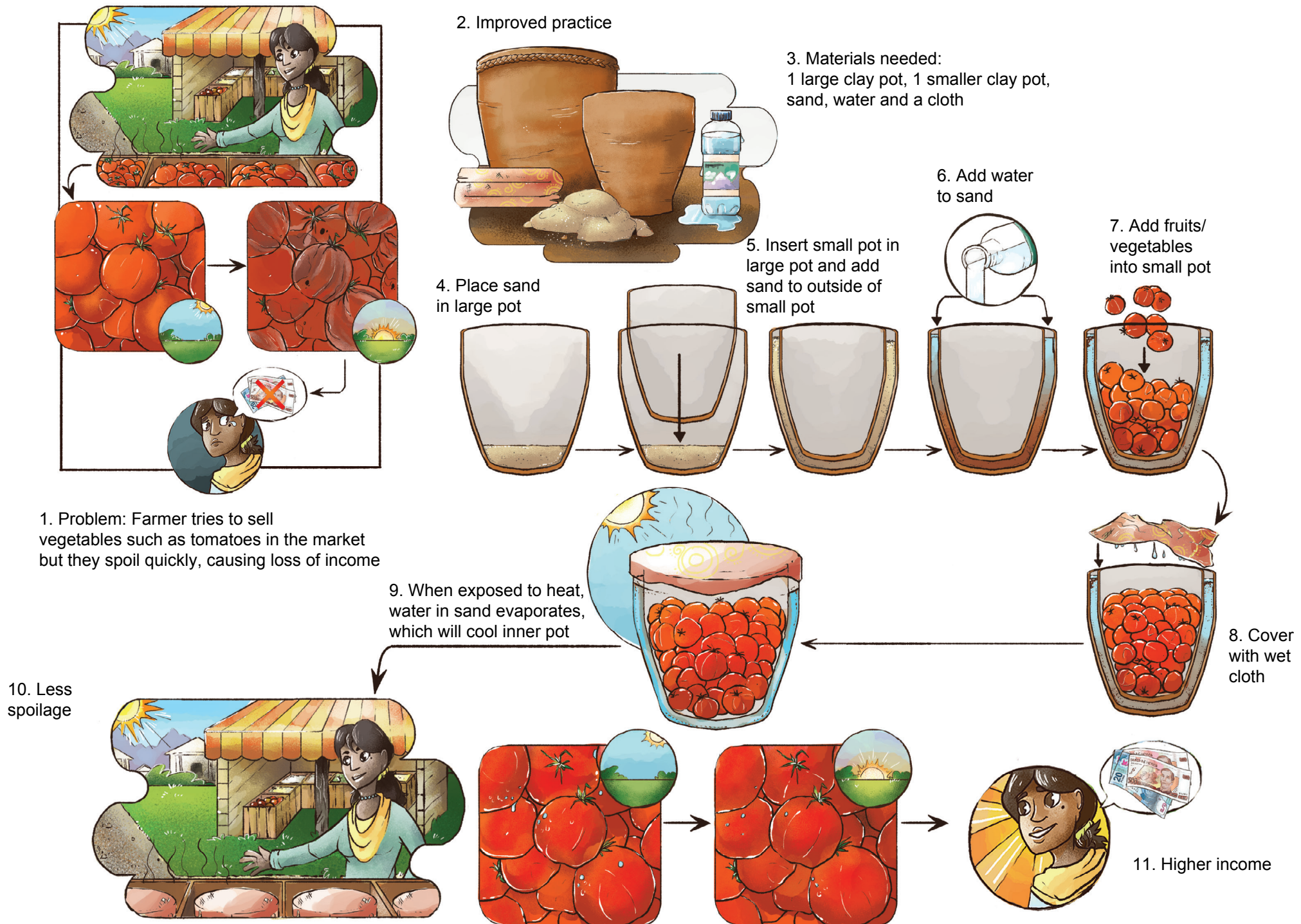
4. Wash in water



5. Re-use many times

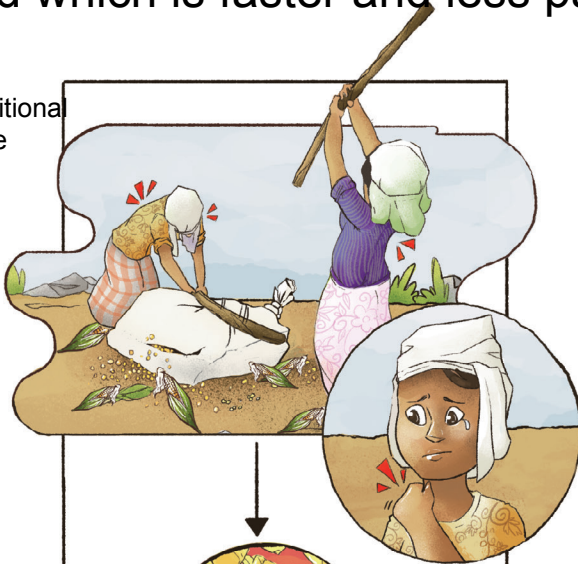


Lesson: To prevent spoilage of fruits and vegetables, a simple clay cooler may be built.

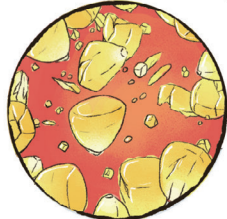


Lesson: Instead of removing grains of maize by beating sacks with a stick, a hand tool can be used which is faster and less painful, and results in seeds which are healthier with fewer toxins

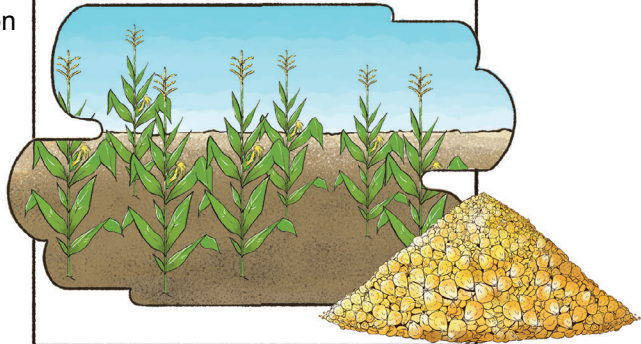
1. Traditional practice



2. Painful



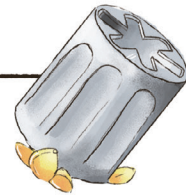
3. Damages seed and cobs which allows more disease during seed storage which can produce toxins. Also, if these seeds are sown, germination may be low



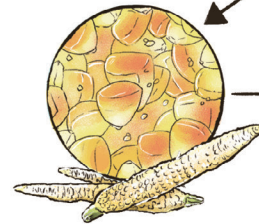
4. New practice



5. Purchase hand tool from vendor



6. Twist tool around cob to remove seeds



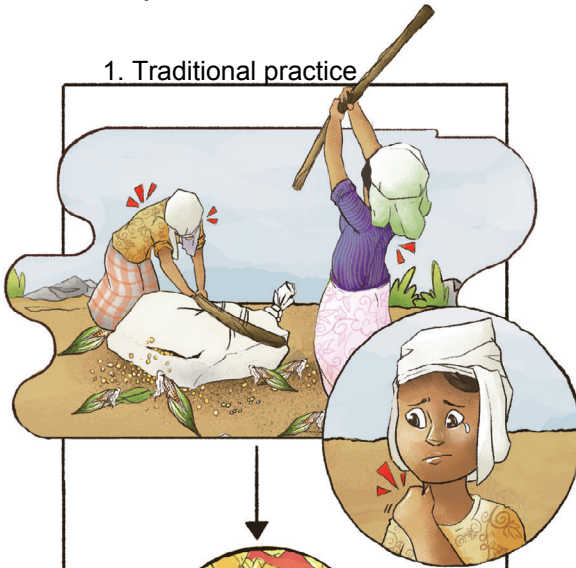
7. Fast, less pain and less breakage of seeds and cob



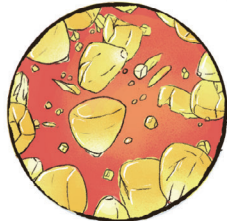
8. Improved germination, less disease when these seeds are sown and fewer toxins when eaten

Lesson: Instead of removing grains of maize by beating sacks with a stick, a hand tool can be made from a tin can which is faster and less painful and results in less toxin in the grain.

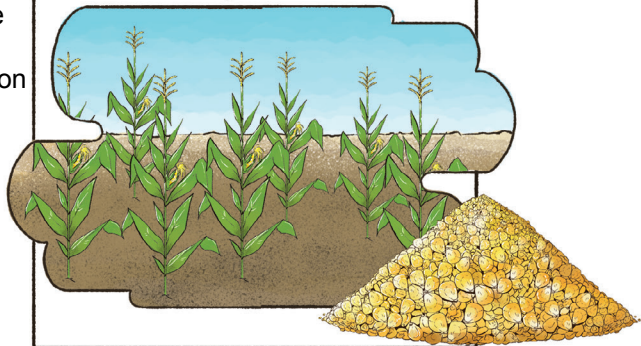
1. Traditional practice



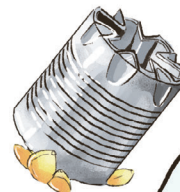
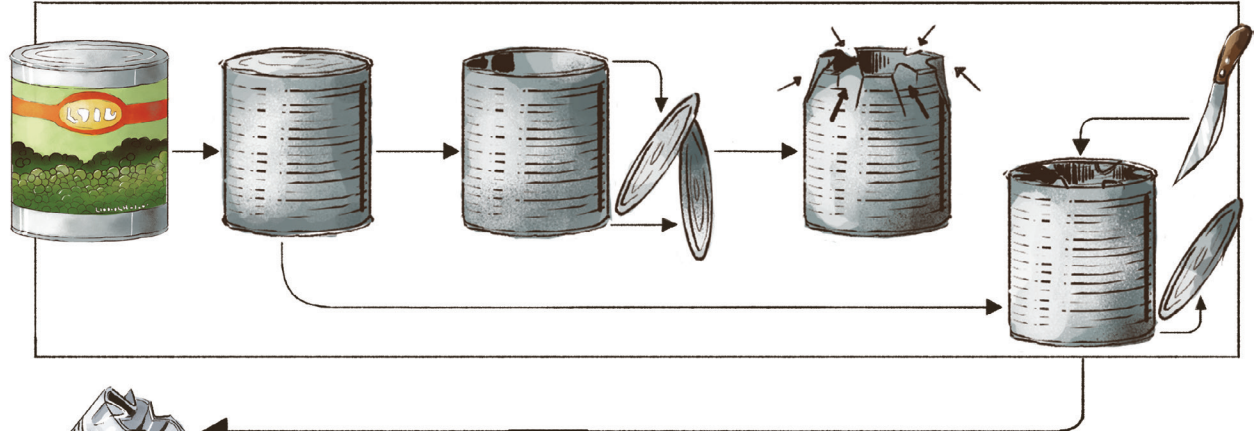
3. Damages seed and cobs which allows more disease during seed storage which can produce toxins. Also, if these seeds are sown, germination may be low



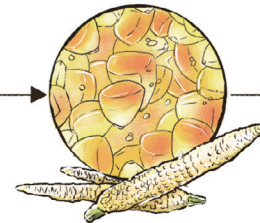
2. Painful



4. New tool: hand maize sheller: remove lid from can, then make cuts with a knife and fold inward



5. Insert cob in tool and rotate cob



6. Seeds and cobs do not break. Less human pain

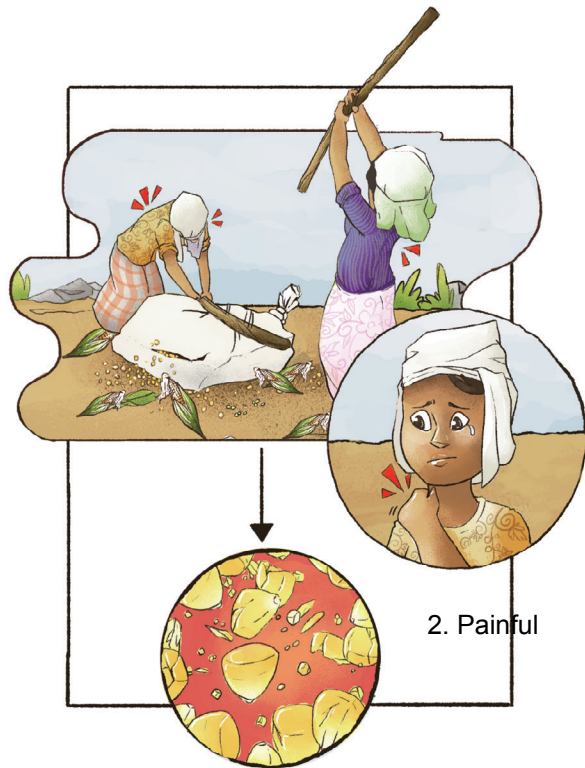


7. Improved germination, less disease when these seeds are sown and fewer toxins when eaten



Lesson: New tools from vendor to remove maize seeds from cob

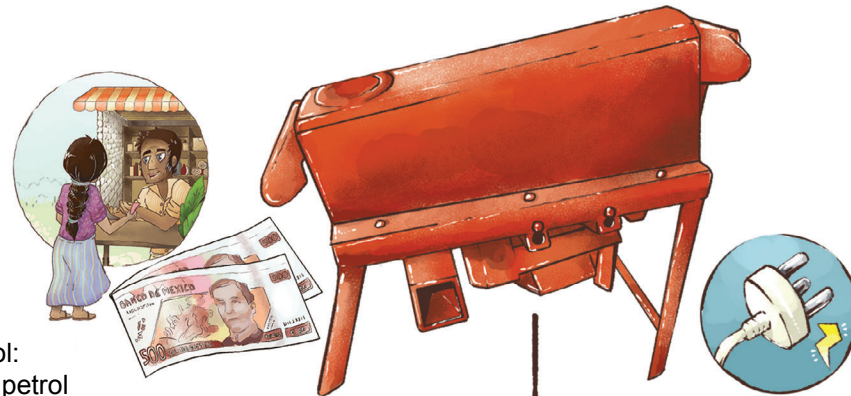
1. Traditional practice



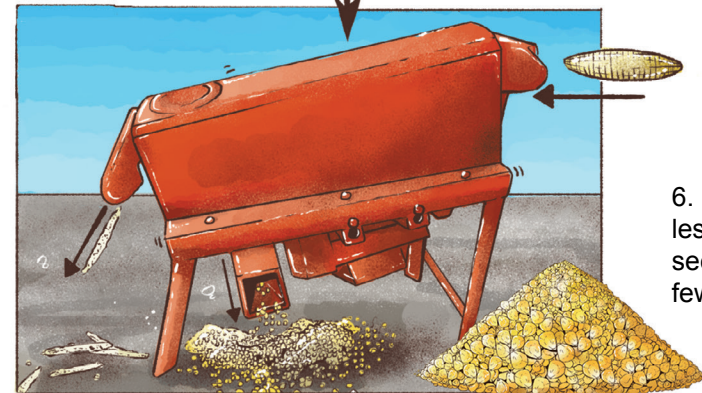
2. Painful

3. Damages seed and cobs which allows more disease during seed storage which can produce toxins. Also, if these seeds are sown, germination may be low

4. New tool:
electric or petrol
maize sheller
from vendor



5. Simply insert
cobs into machine



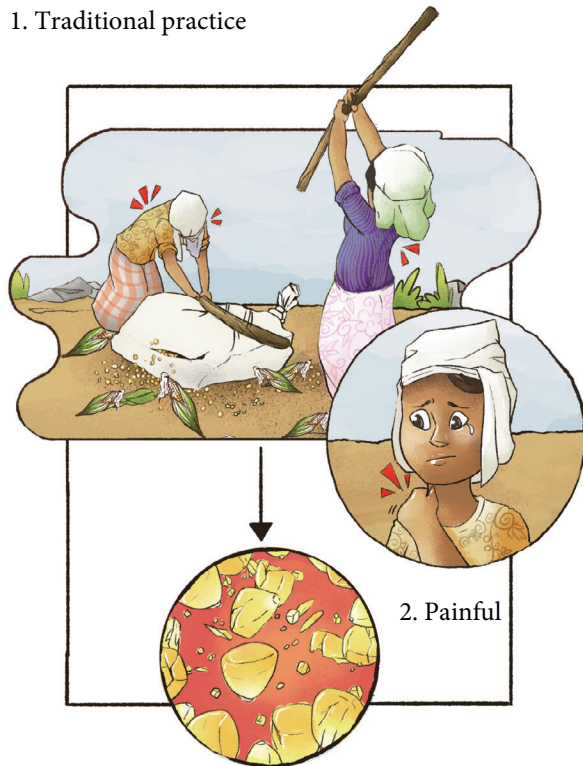
6. Improved germination,
less disease when these
seeds are sown and
fewer toxins when eaten

7. Owner can
rent machine or
offer service for
a fee as a small
business opportunity



Lesson: New tools from vendor to remove maize seeds from cob

1. Traditional practice

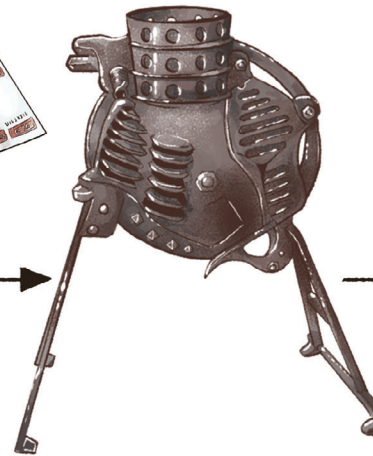


2. Painful

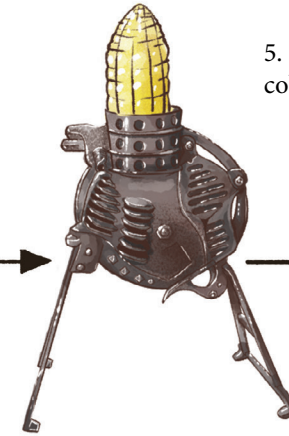
3. Damages seed and cobs which allows more disease during seed storage which can produce toxins. Also, if these seeds are sown, germination may be low



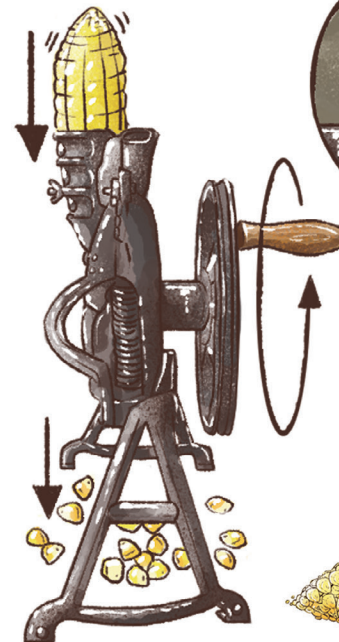
4. New tool:
Hand operated
maize sheller



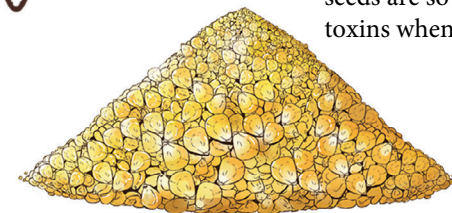
5. Feed each
cob into machine



6. Turn
crank

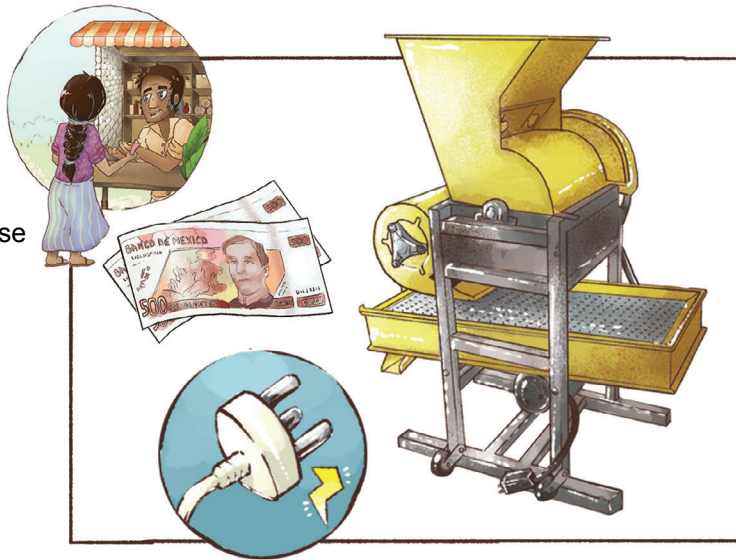


7. Improved germination,
less disease when these
seeds are sown and fewer
toxins when eaten

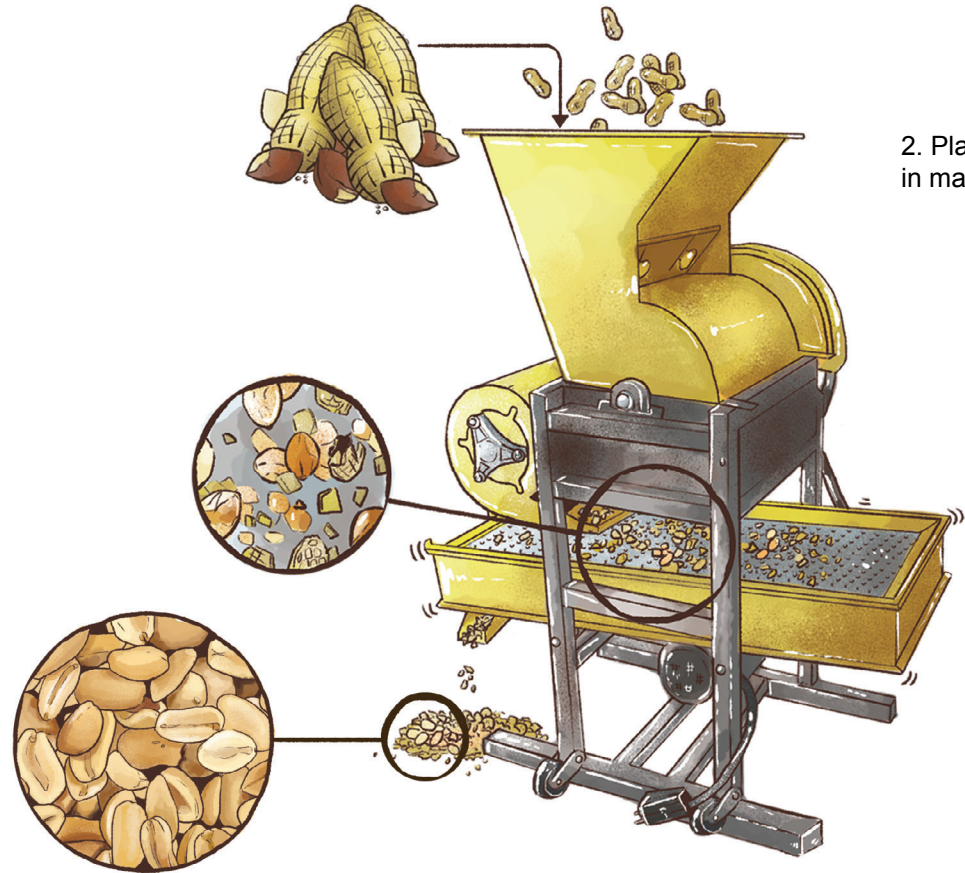


Lesson: New machine from vendor to remove shell from peanuts

1. Purchase from vendor, electric or petrol powered



2. Place peanuts in machine

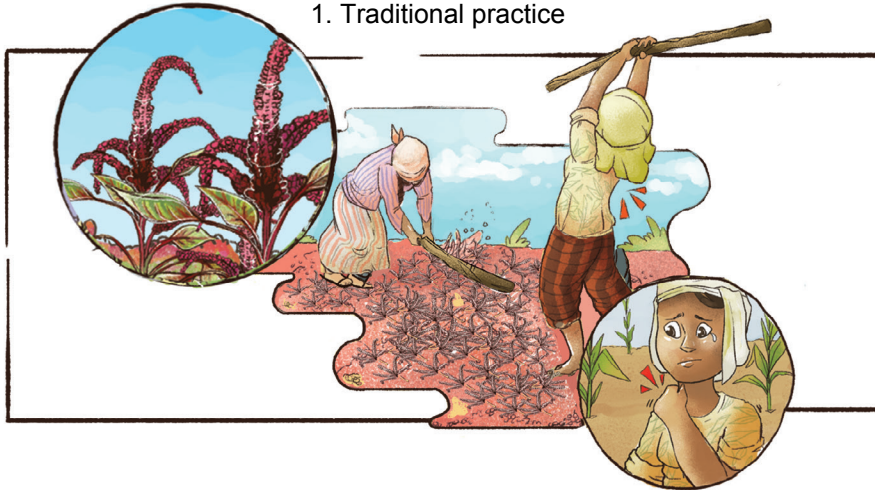


3. Owner can rent machine or offer service for a fee as a small business opportunity



Lesson: Instead of manual threshing of grain, grain may be placed on a road to reduce labour

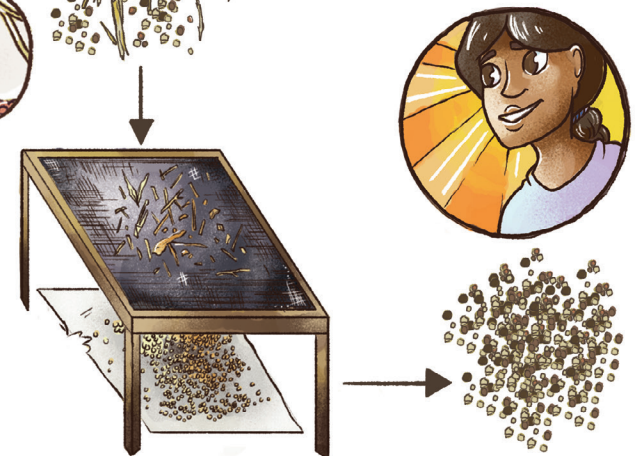
1. Traditional practice



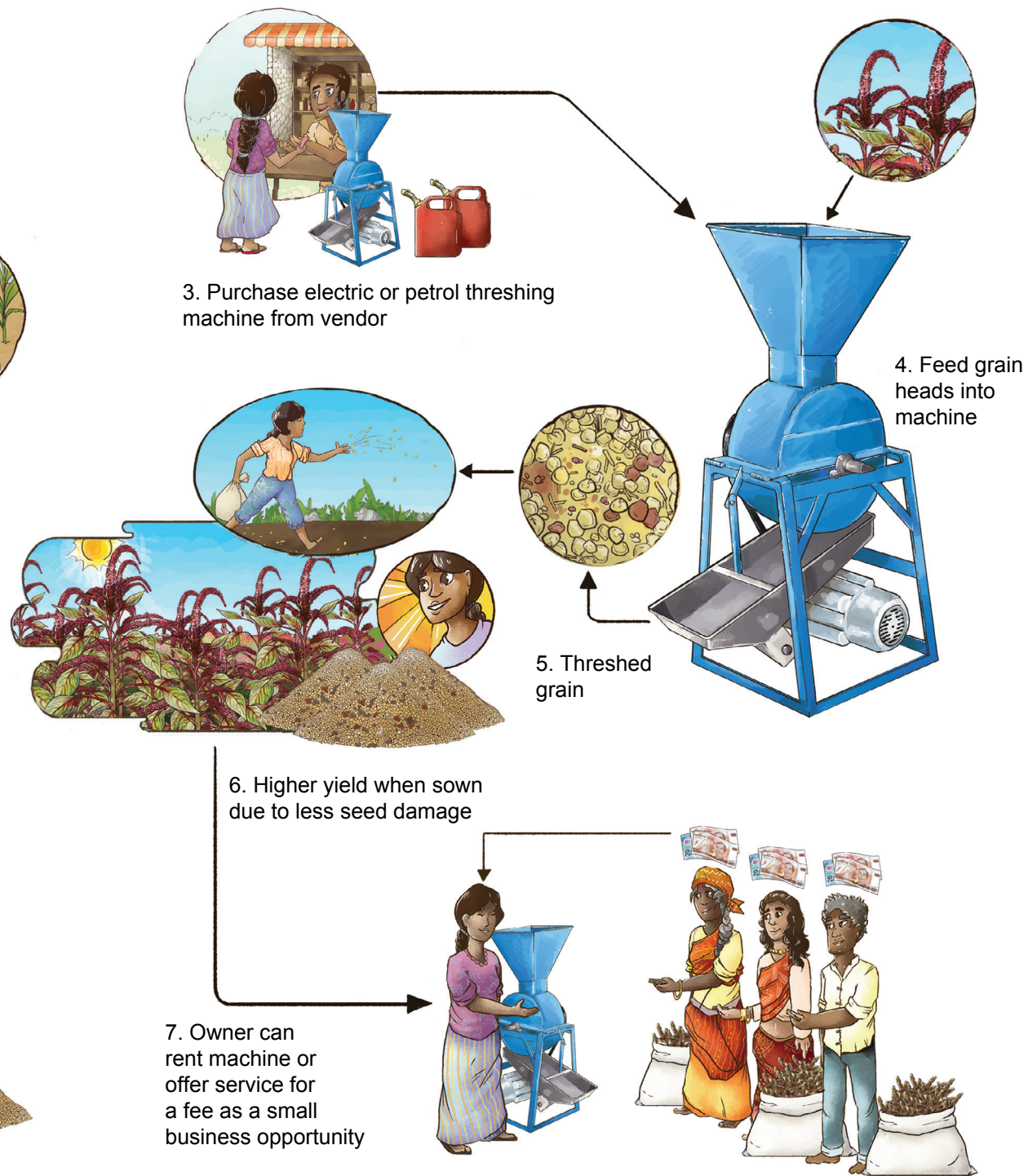
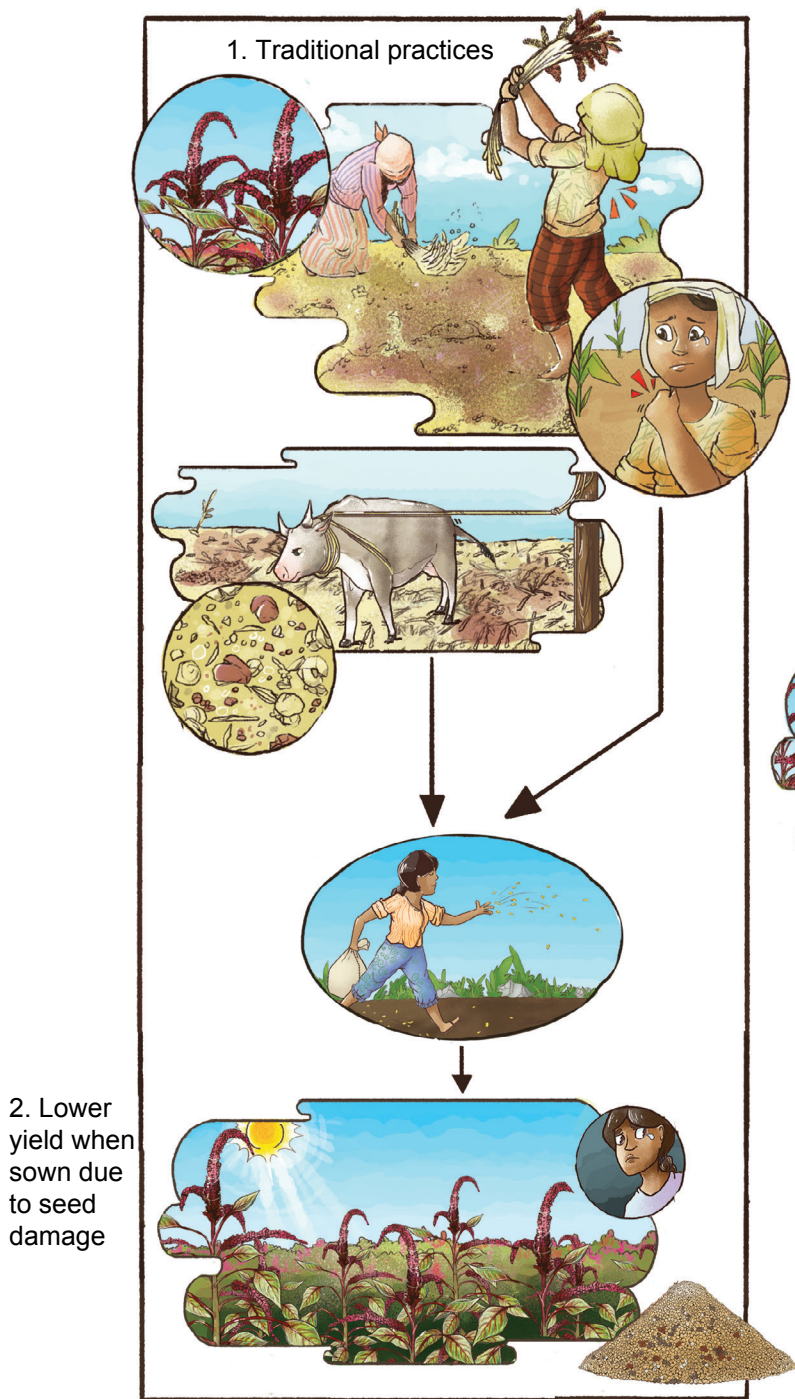
2. Improved practice using car trampling



3. Also use sieve



Lesson: Instead of threshing millet grain manually, a machine can be used.

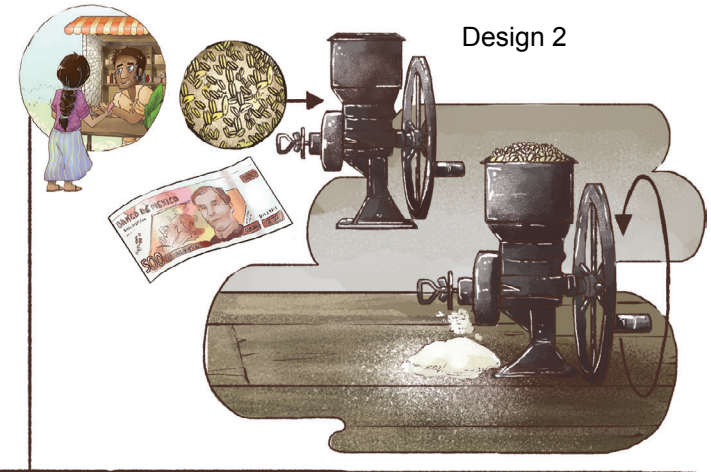
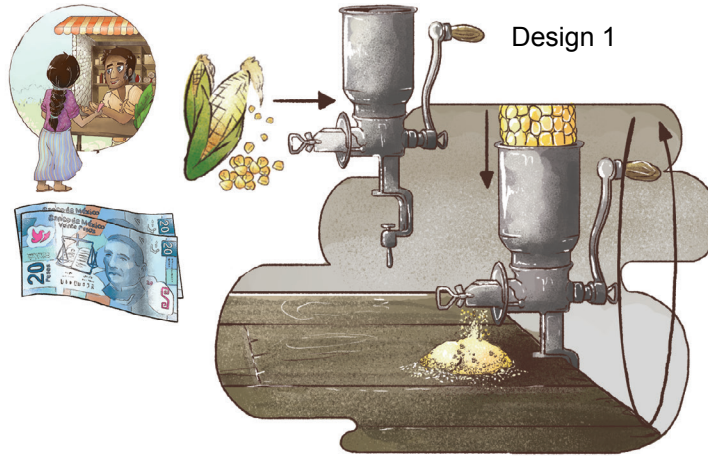


Lesson: To make flour, instead of pounding grain with a stick, there are new machines available

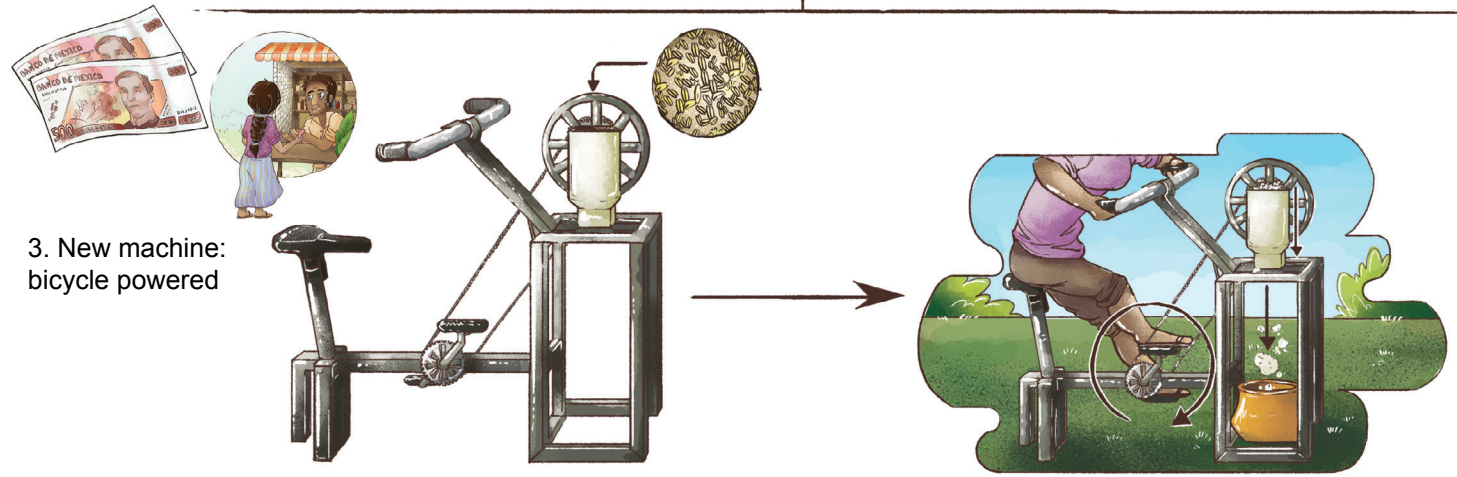
1. Traditional practice



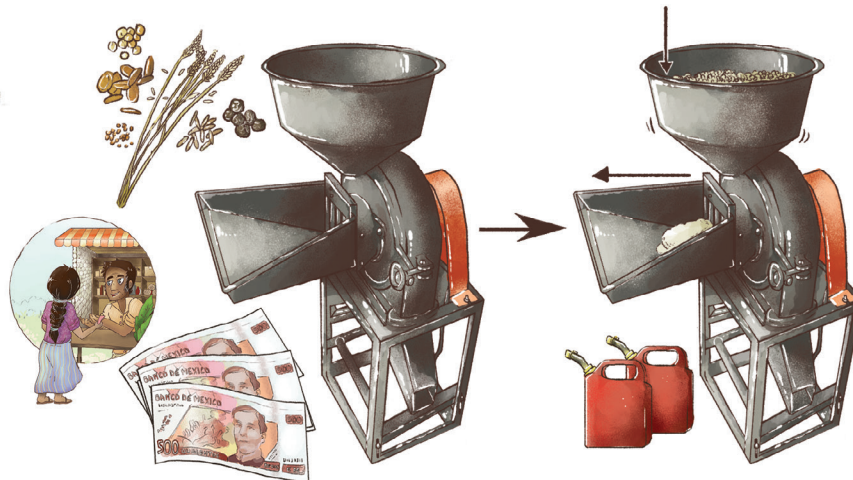
2. New tool: hand crank



3. New machine: bicycle powered



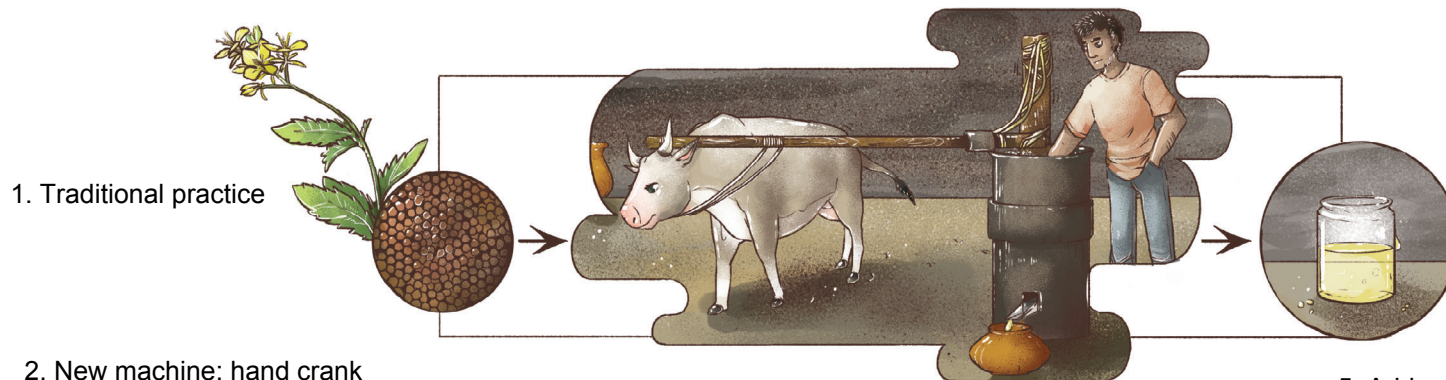
4. New machine: electric/gas



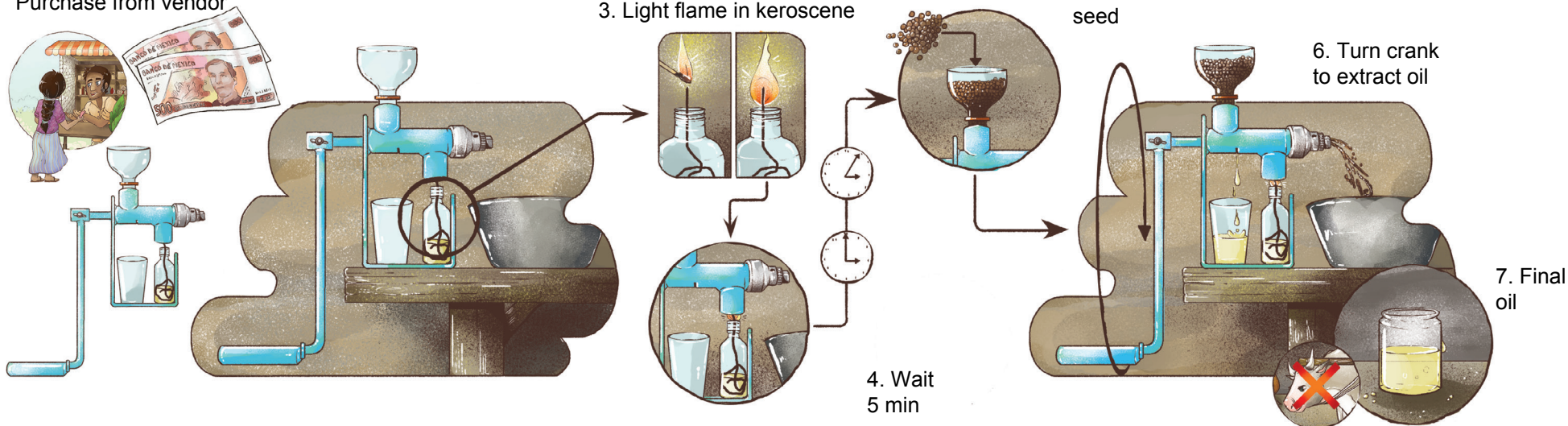
5. Owner can rent machine or service for money



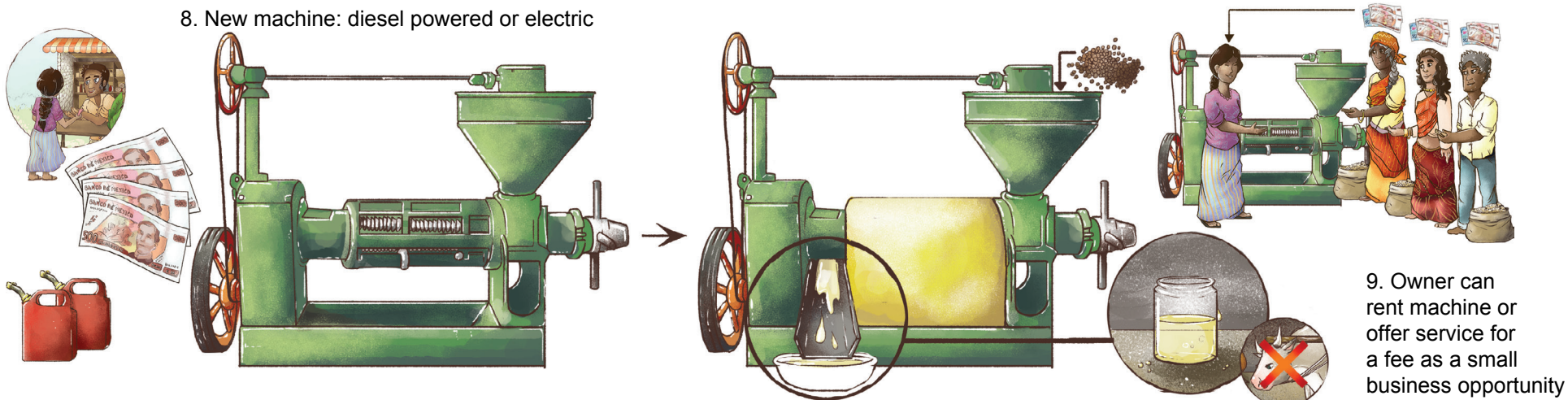
Lesson: New machines may be used to extract cooking oil from seeds



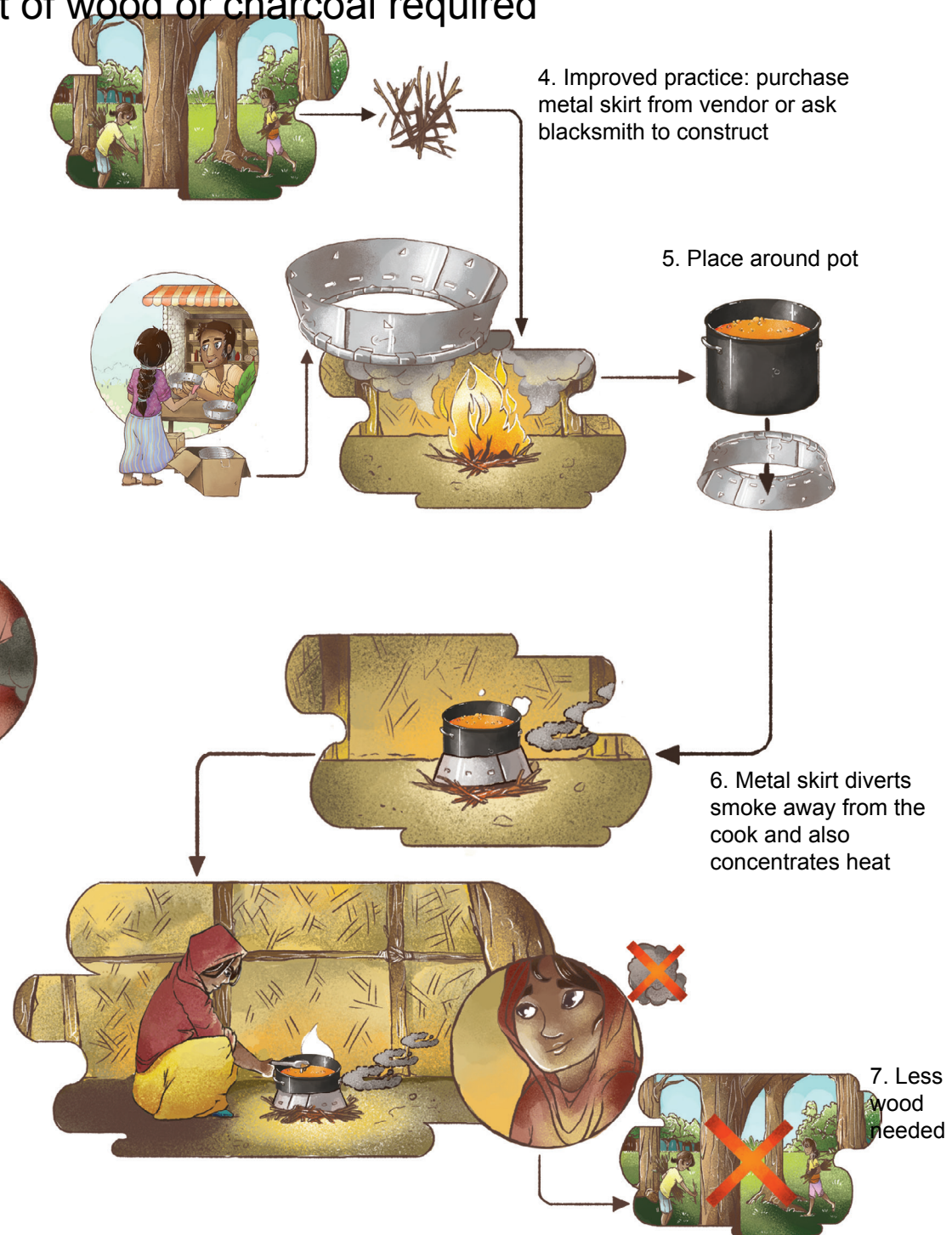
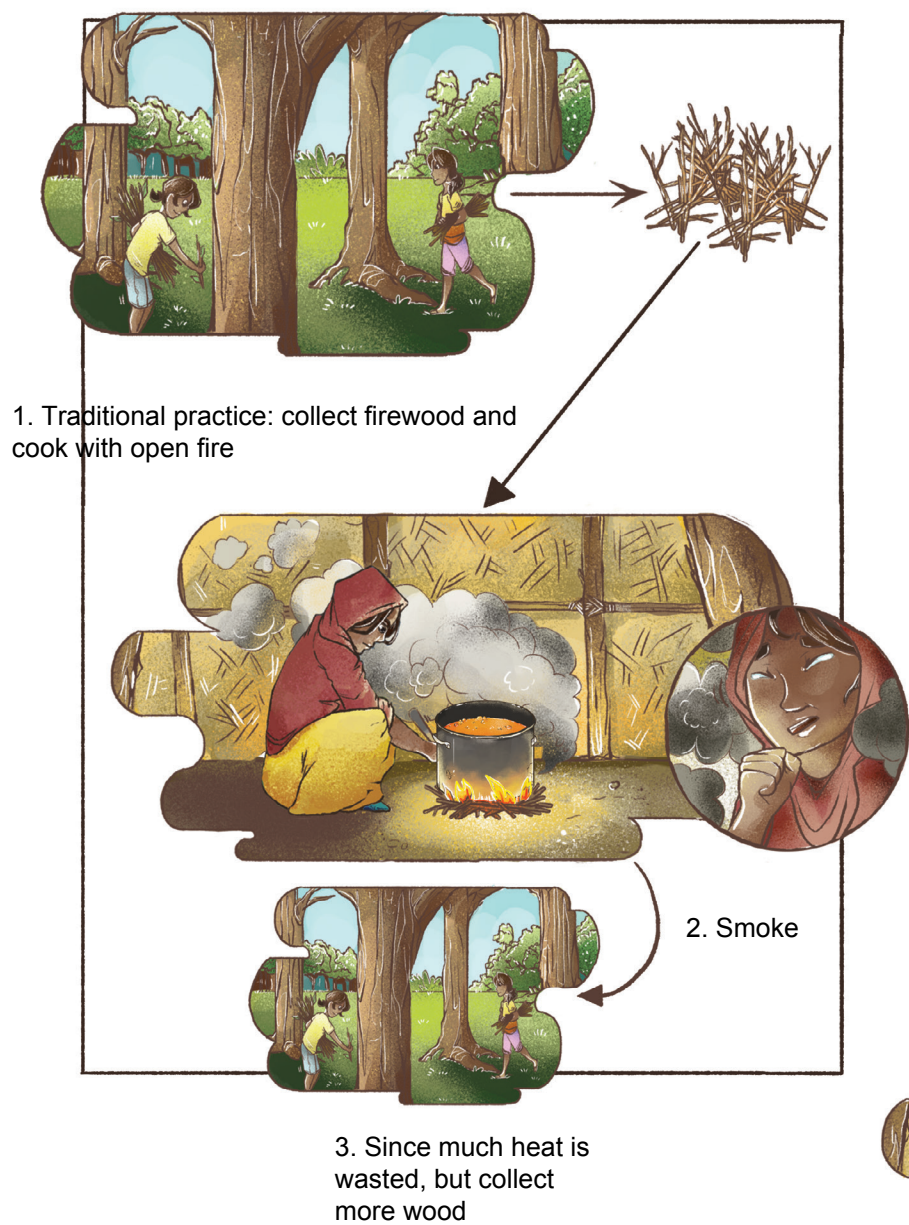
2. New machine: hand crank
Purchase from vendor



8. New machine: diesel powered or electric

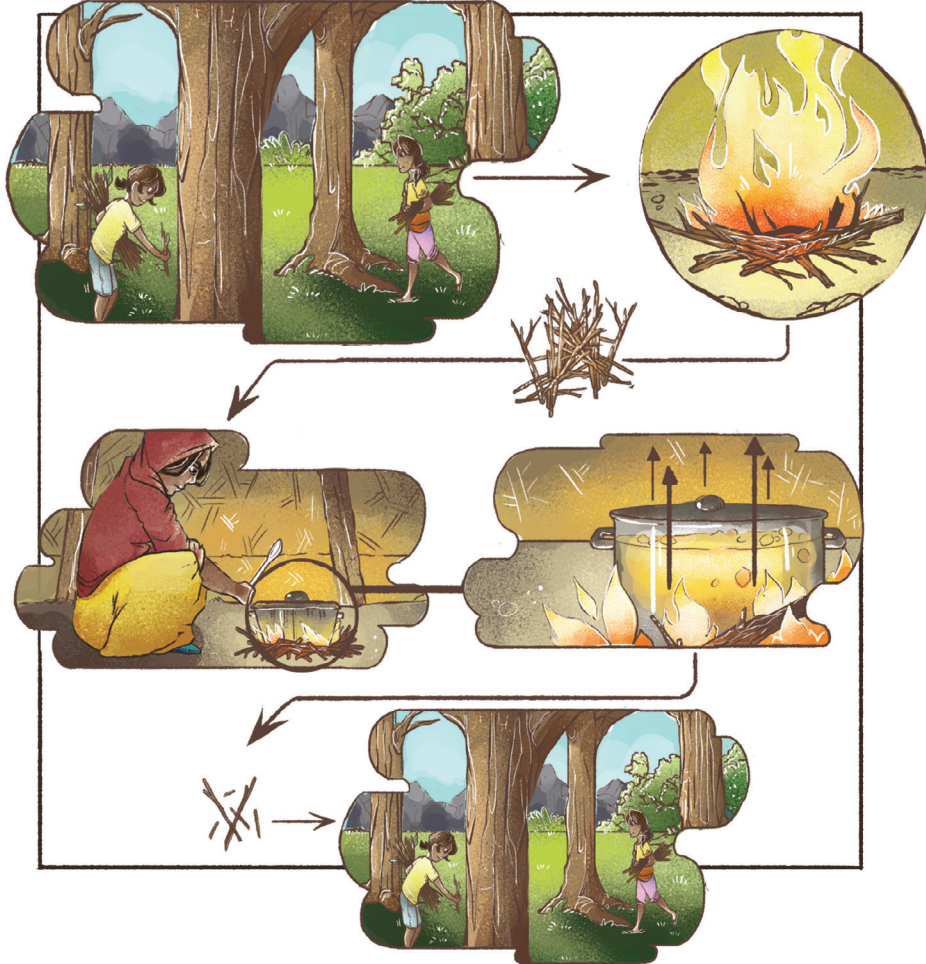


Lesson: Use of a metal skirt around the cooking fire can reduce smoke and raise the heat, which reduces the cooking time and amount of wood or charcoal required



Lesson: Use of a pressure cooker can raise the heat to reduce the cooking time, and the amount of wood or charcoal required especially in high altitudes

1. Traditional practice: collect firewood and cook using a regular pot which cooks at a low temperature and loses heat. Cooking time is slow and consumes firewood so more must be collected. Cooking time is even slower at high altitudes.



2. Improved practice: purchase pressure cooker from vendor

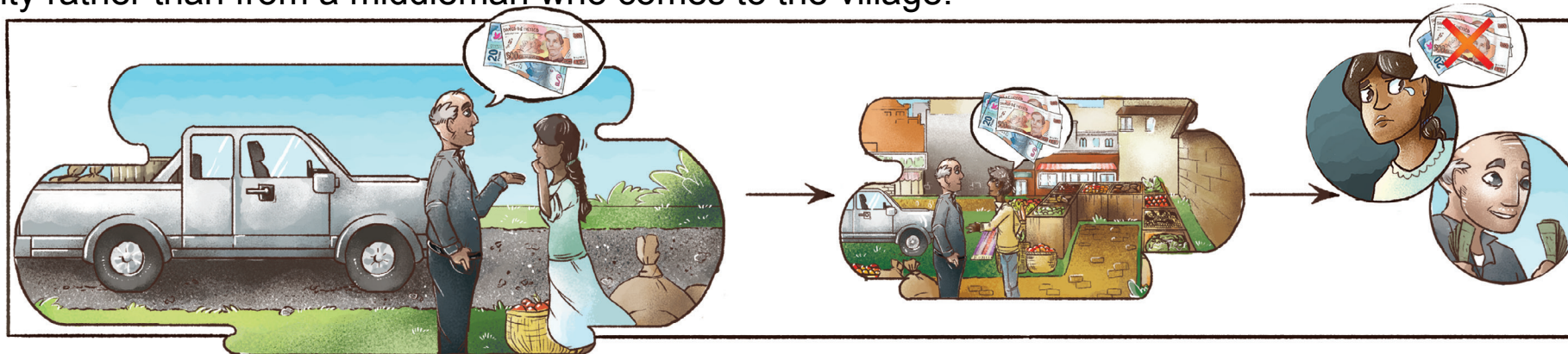


3. Pot is sealed, so pressure builds, heat does not escape, and temperature is raised above boiling



4. Cooking time is faster, consume less firewood or charcoal, so less wood needs to be collected

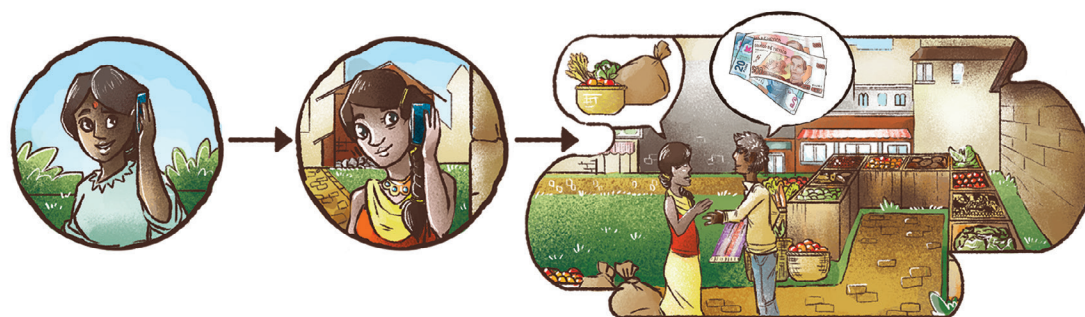
Lesson: It is better to obtain the selling price for farm harvest products from a friend or family member in the city rather than from a middleman who comes to the village.



1. Traditional practice: middleman comes to the village and offers a low price for the farm harvest

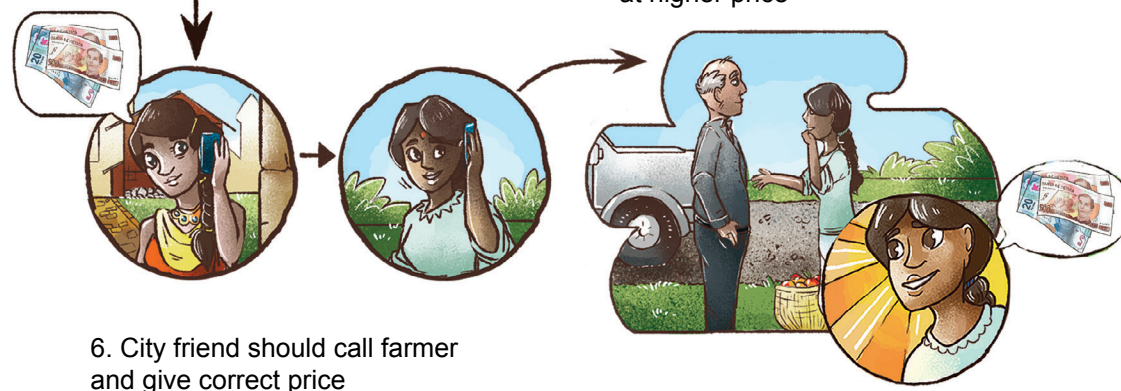
2. Middleman goes to city merchant and sells for a higher price

3. Farmer gets little money, but middleman gets more money



4. Improved practice: farmer should phone friend or relative in the city

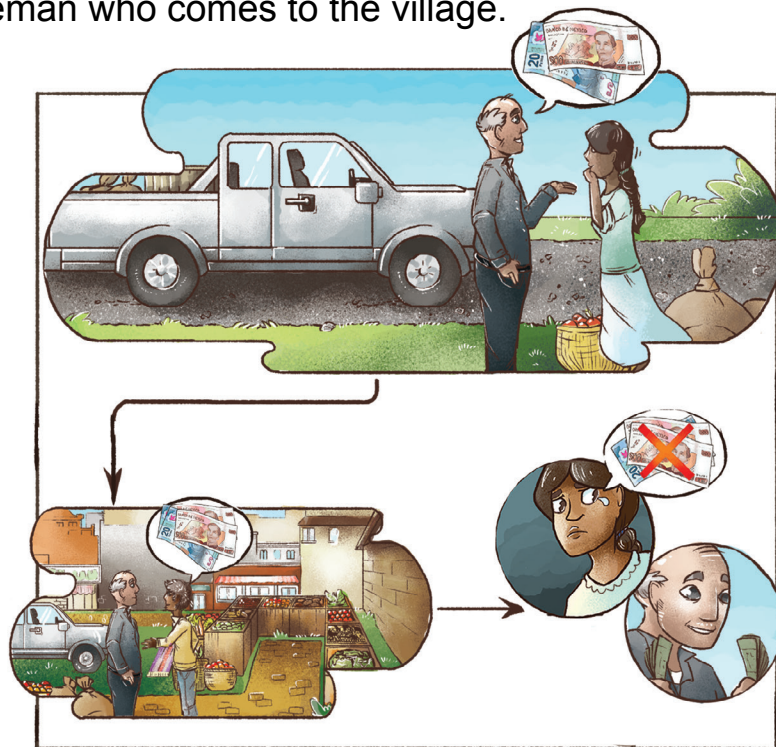
5. Friend should speak to merchant in city to inquire about grain price



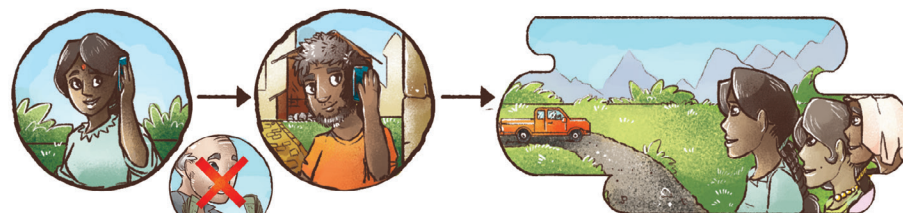
7. Farmer should sell to middleman at higher price

6. City friend should call farmer and give correct price

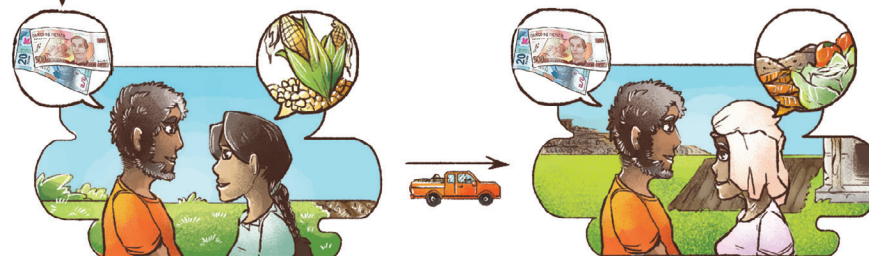
Lesson: It is better to sell farm harvest products directly to a friend or family member who lives in the city rather than to a middleman who comes to the village.



1. Traditional practice: middleman comes to the village and offers a low price for the farm harvest, then middleman goes to city merchant and sells for a higher price.



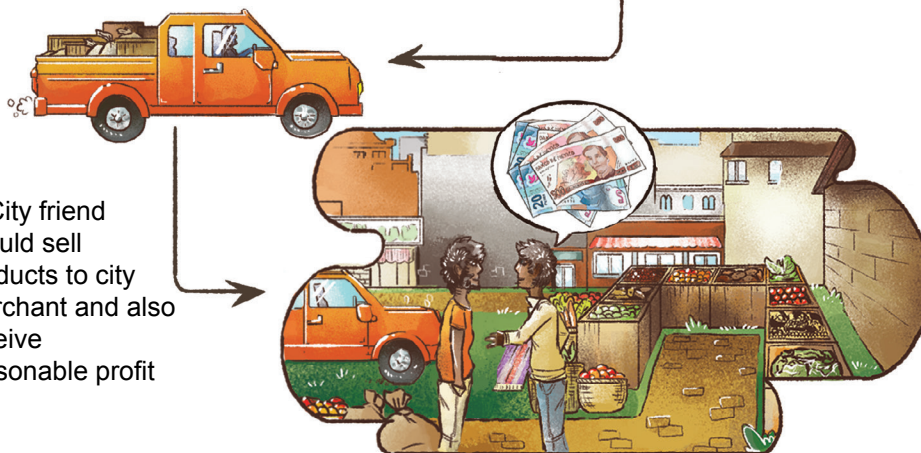
2. Improved practice: village should ask a friend or family member from the city to come to the village with a truck



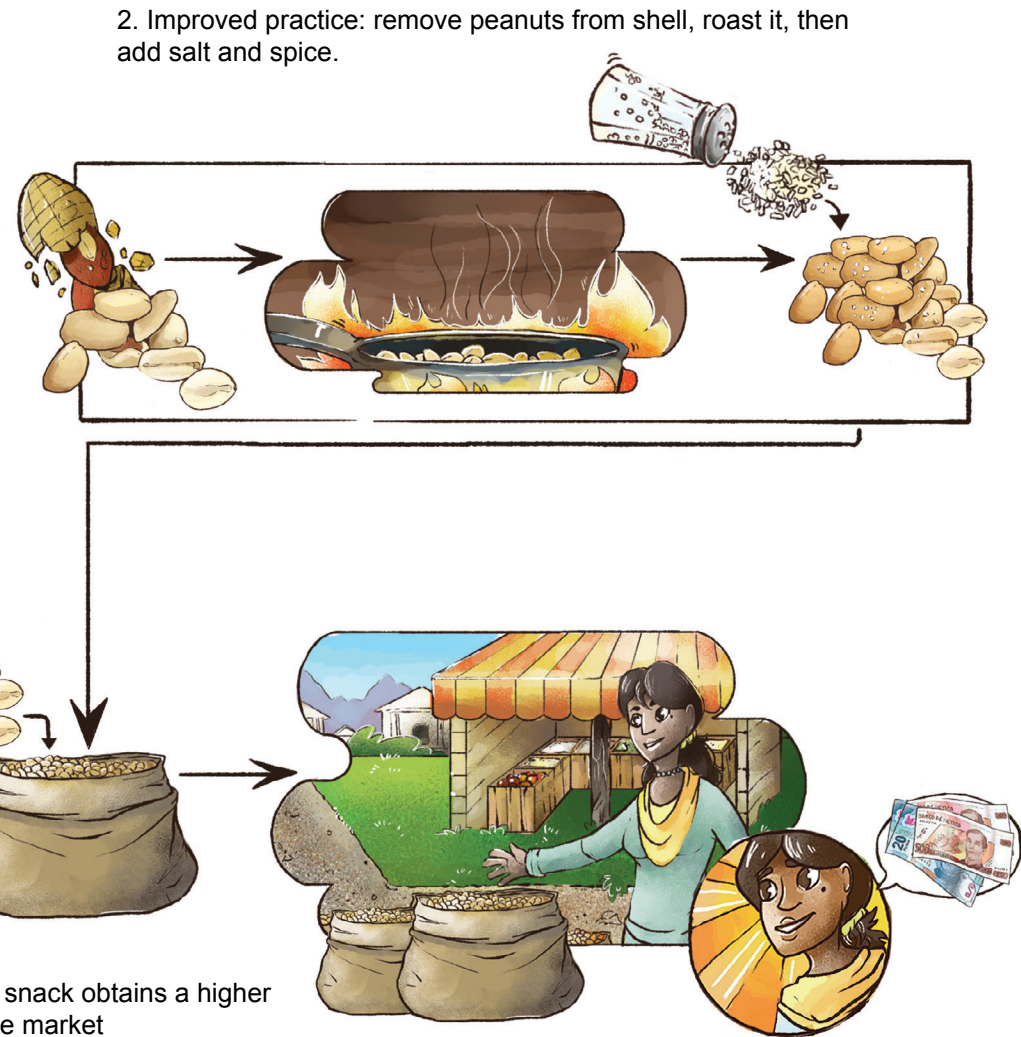
3. City friend should buy products from different farmers at a fair price



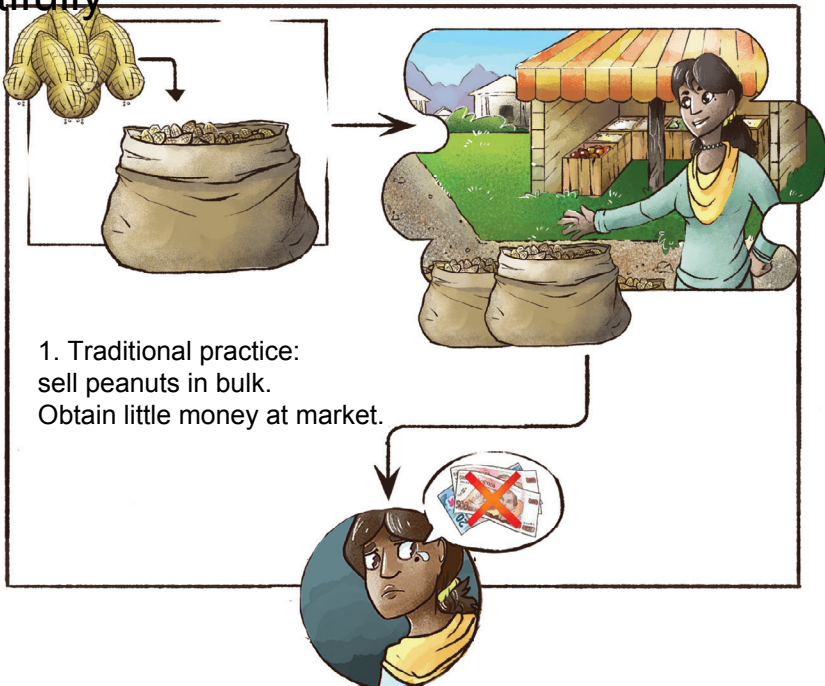
4. City friend should sell products to city merchant and also receive reasonable profit



Lesson: Rather than selling raw harvested products, it is more profitable to sell cooked and tasty snacks

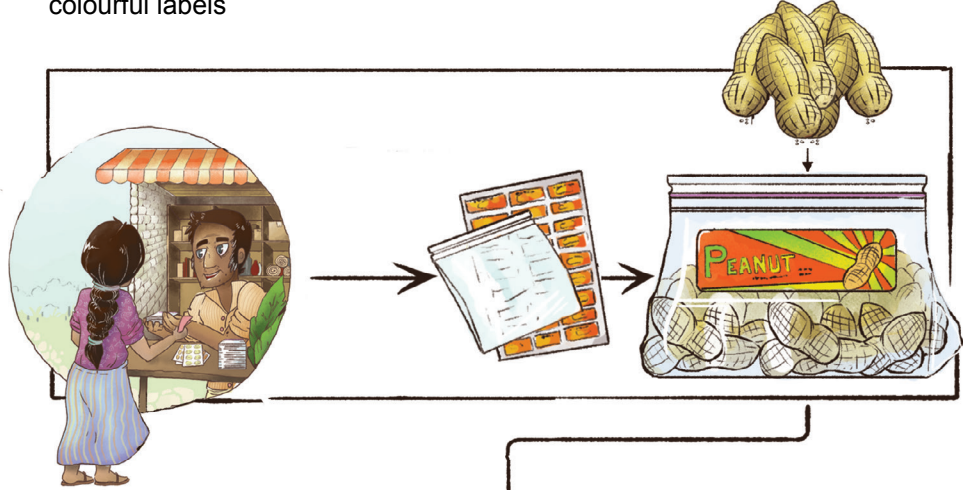


Lesson: Rather than selling harvested products in bulk, it is more profitable to package them beautifully



1. Traditional practice:
sell peanuts in bulk.
Obtain little money at market.

2. Improved practice: place peanuts in packages with beautiful, colourful labels



3. Packaged peanuts
obtain a higher
price at the market

