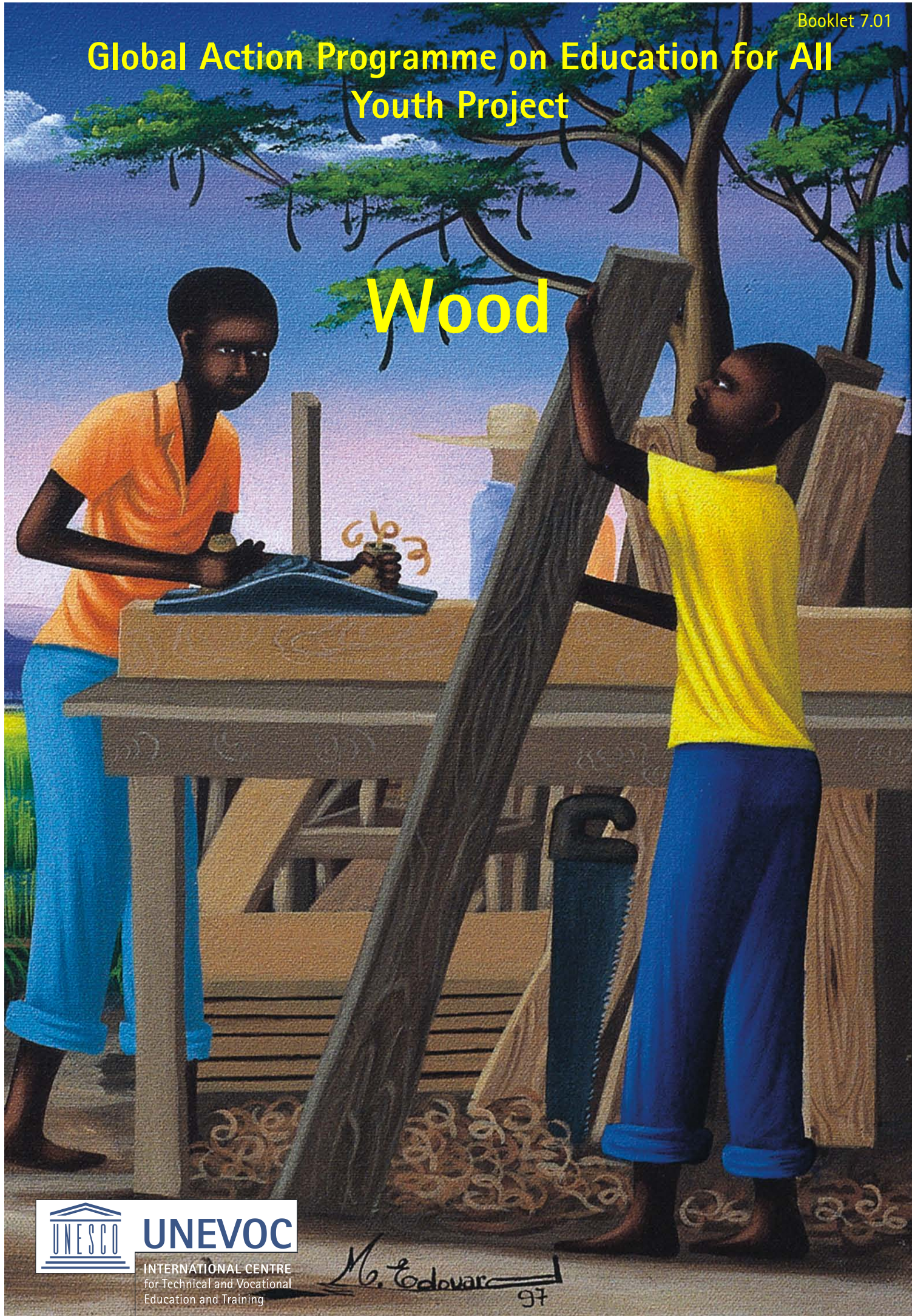


# Global Action Programme on Education for All Youth Project

## Wood



**UNEVOC**

INTERNATIONAL CENTRE  
for Technical and Vocational  
Education and Training

*M. Edouard*  
97

# Learning and Working

## Motivating for Skills Development: A Campaign Package

Version February 2006

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## Booklet 7.01 – WOOD

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This booklet complements the video clip on "Wood" on DVD 1. It contains a short summary of the video and illustrations followed by technical texts, which will make it easier to understand and recall the activities shown in the video. The booklet can be copied and handed out to participants, so that they can make notes on them or use them as a reference for later.

A transcript of the soundtrack of the video is included at the back of the booklet. Whenever the locally spoken language is different from the language used in the video, the facilitator may wish to use this text transcript as a basis for comments and explanations in a local language.

### Comments and observations

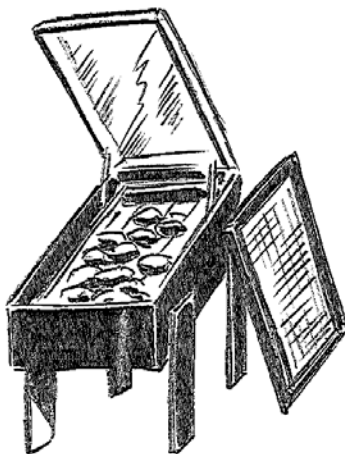
In many countries, wood has become a scarce resource. As an alternative, it is suggested to use metal instead of wood to build a solar oven and instead of plastic, glass could be used for the covering of the solar oven.

### Video WOOD: Summary

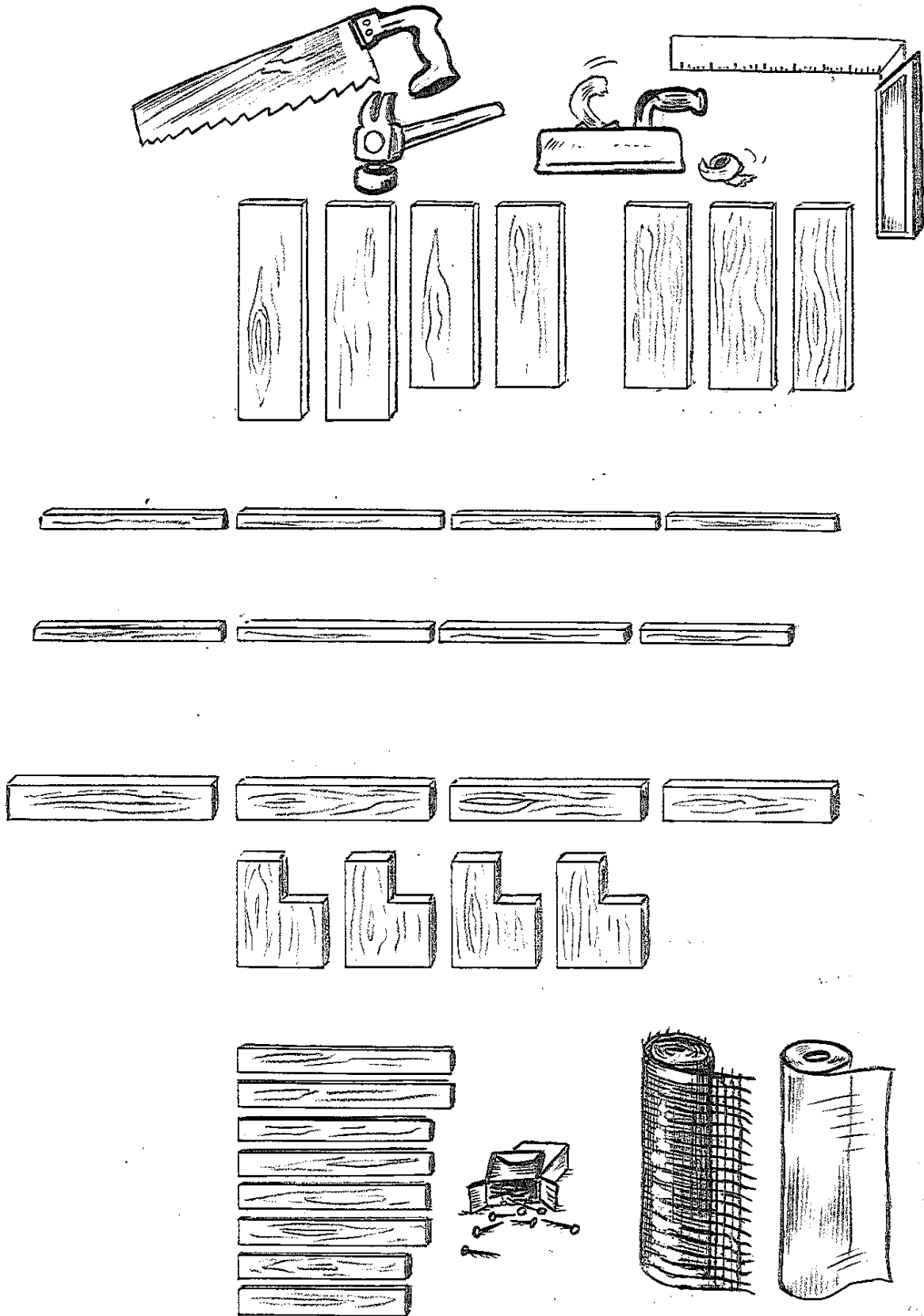
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For everybody who is interested in working with wood, this video summarizes the basic knowledge to build a solar box which can be used to dry fruits, useful for domestic as well as for traditional targets, notably in areas with fruit culture.

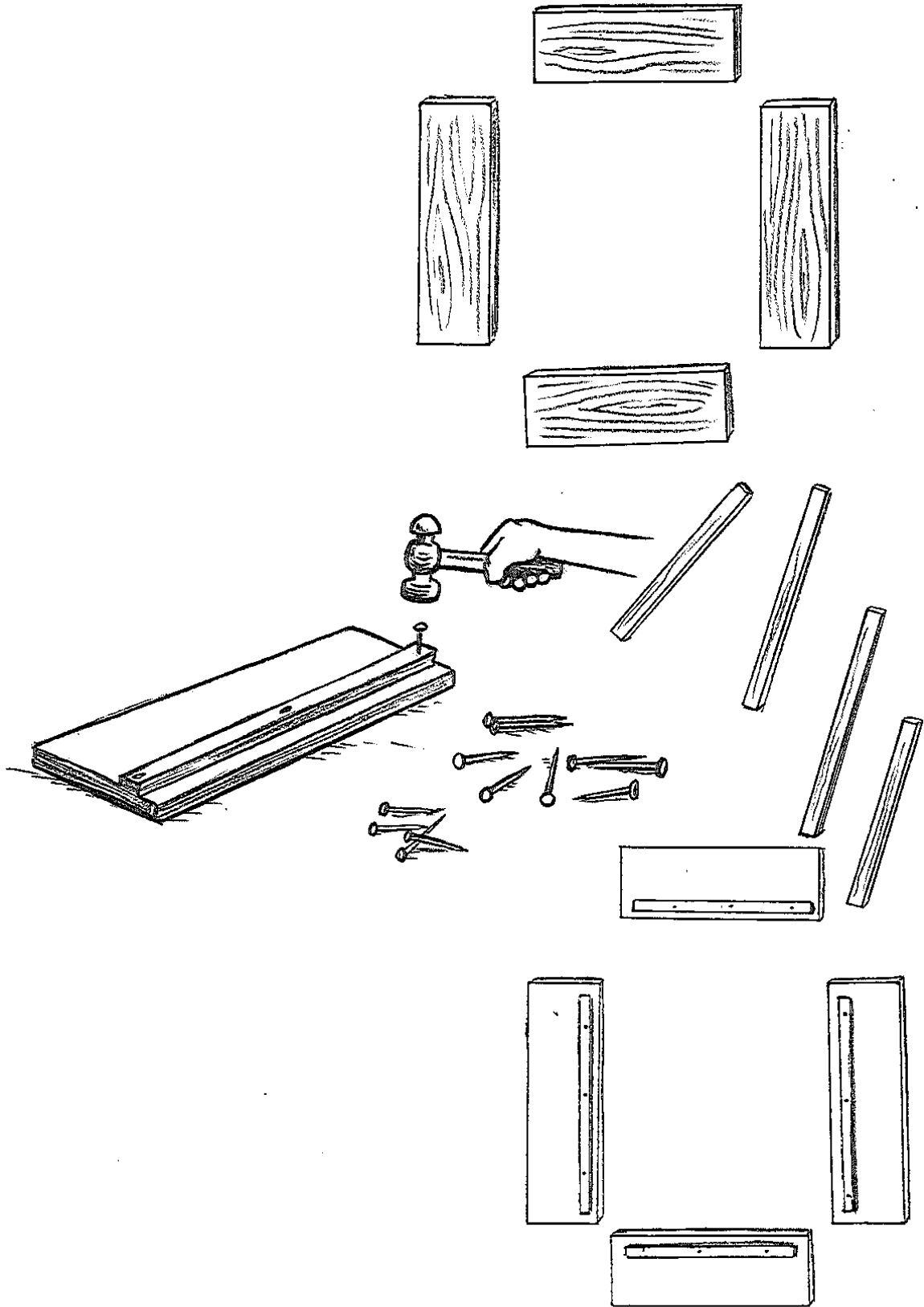
The video also presents many suggestions concerning other products made of wood: toys, model boats, sculptures, furniture, as well as advice and ideas about working with wood in general.



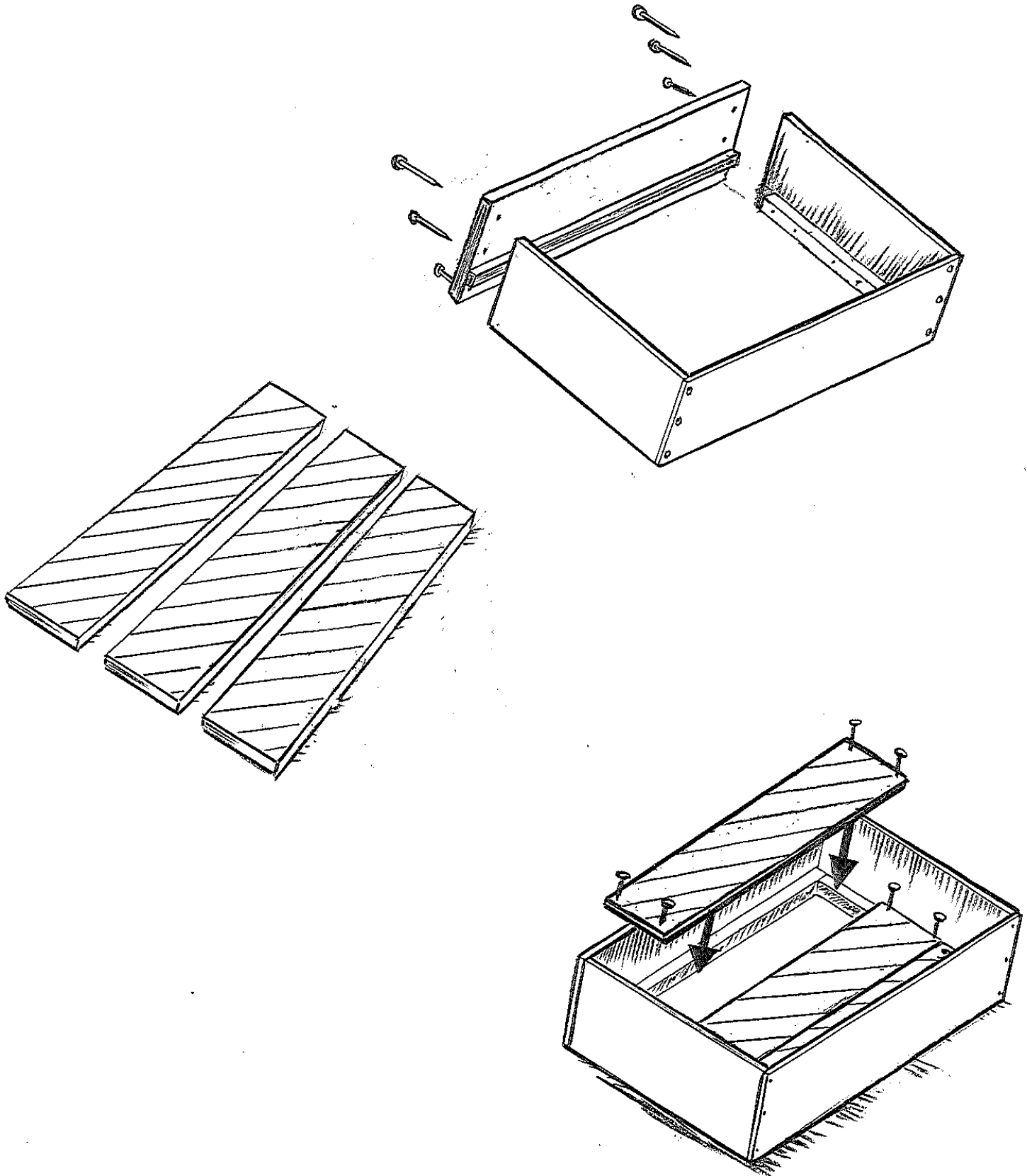
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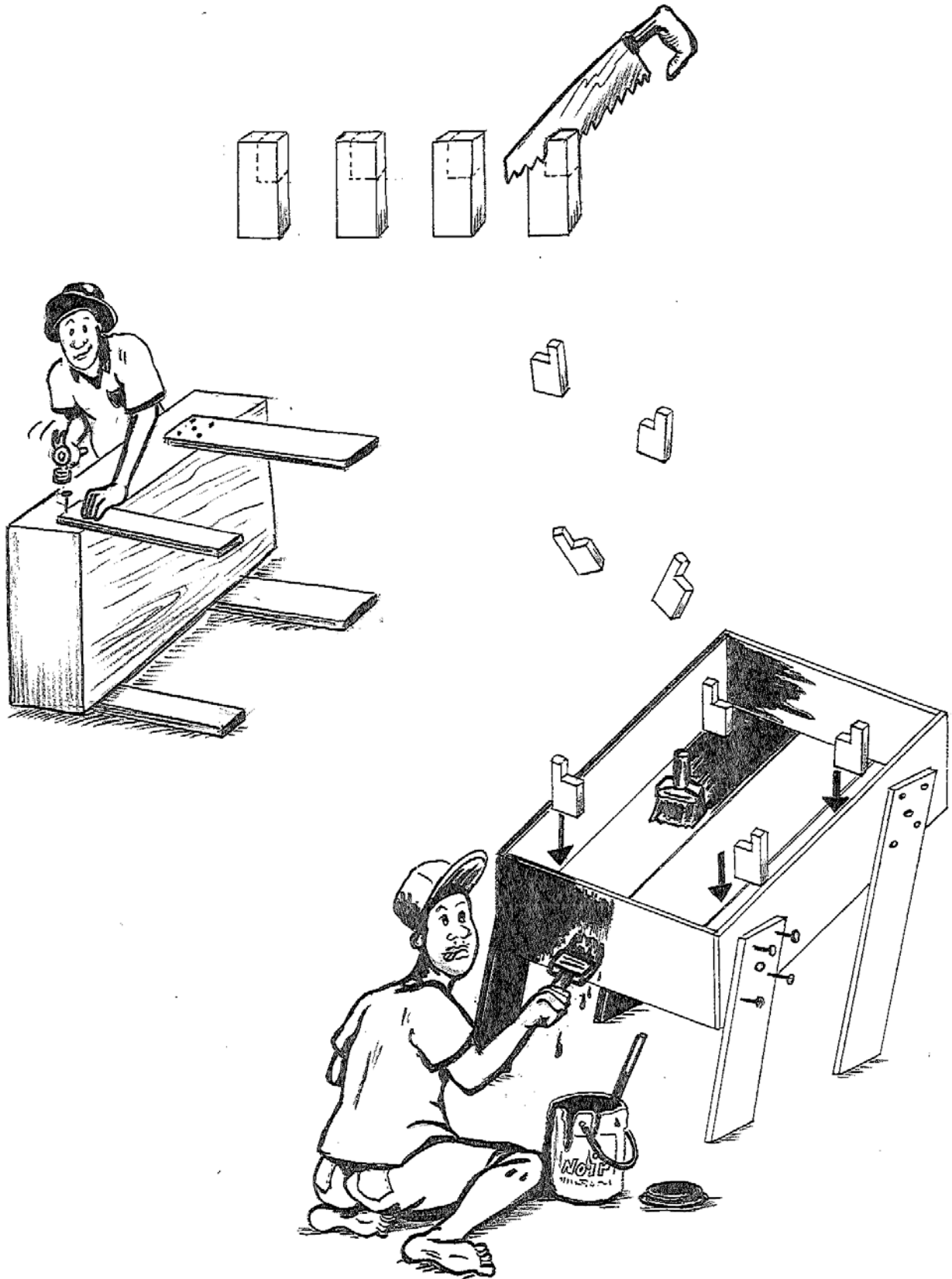
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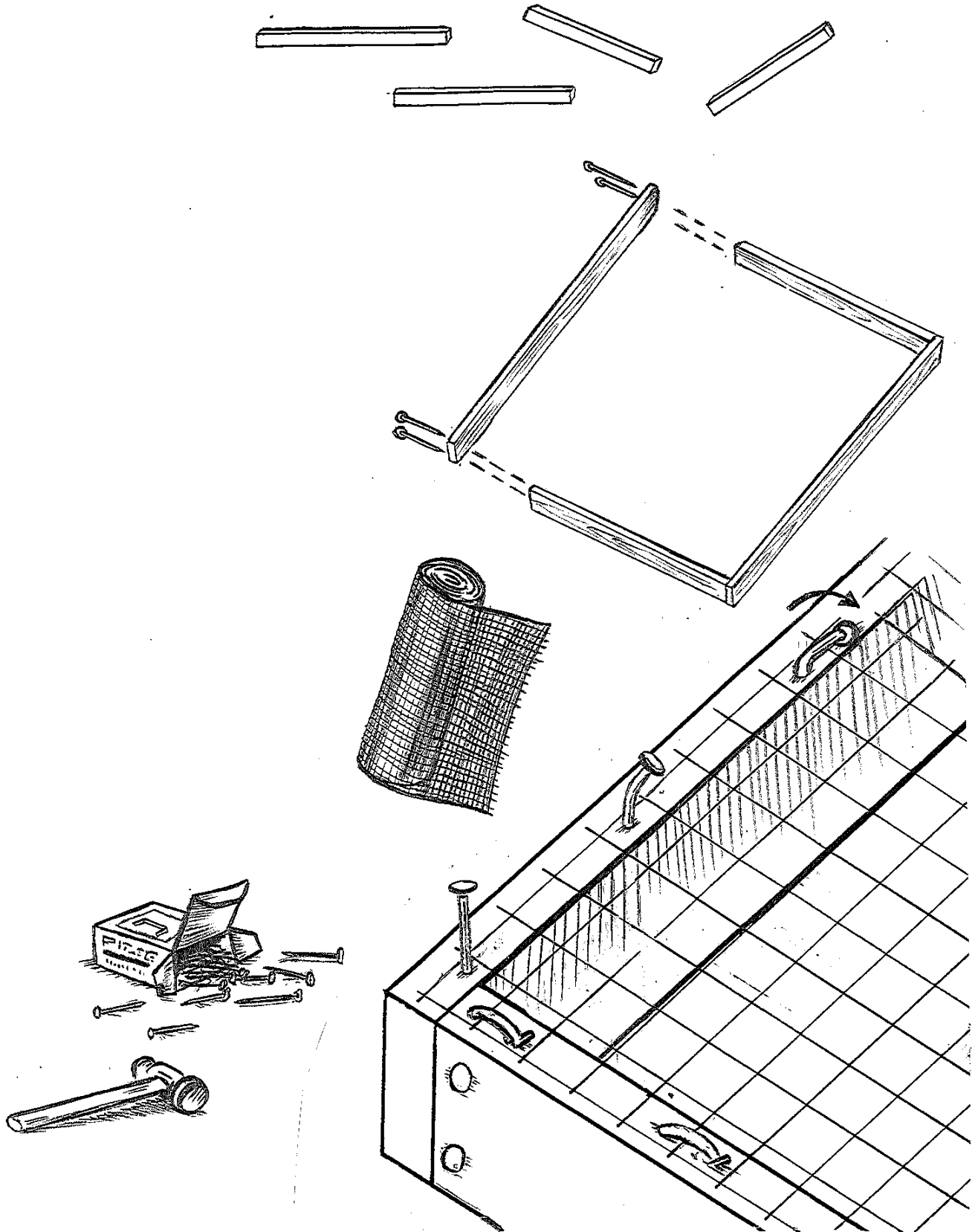


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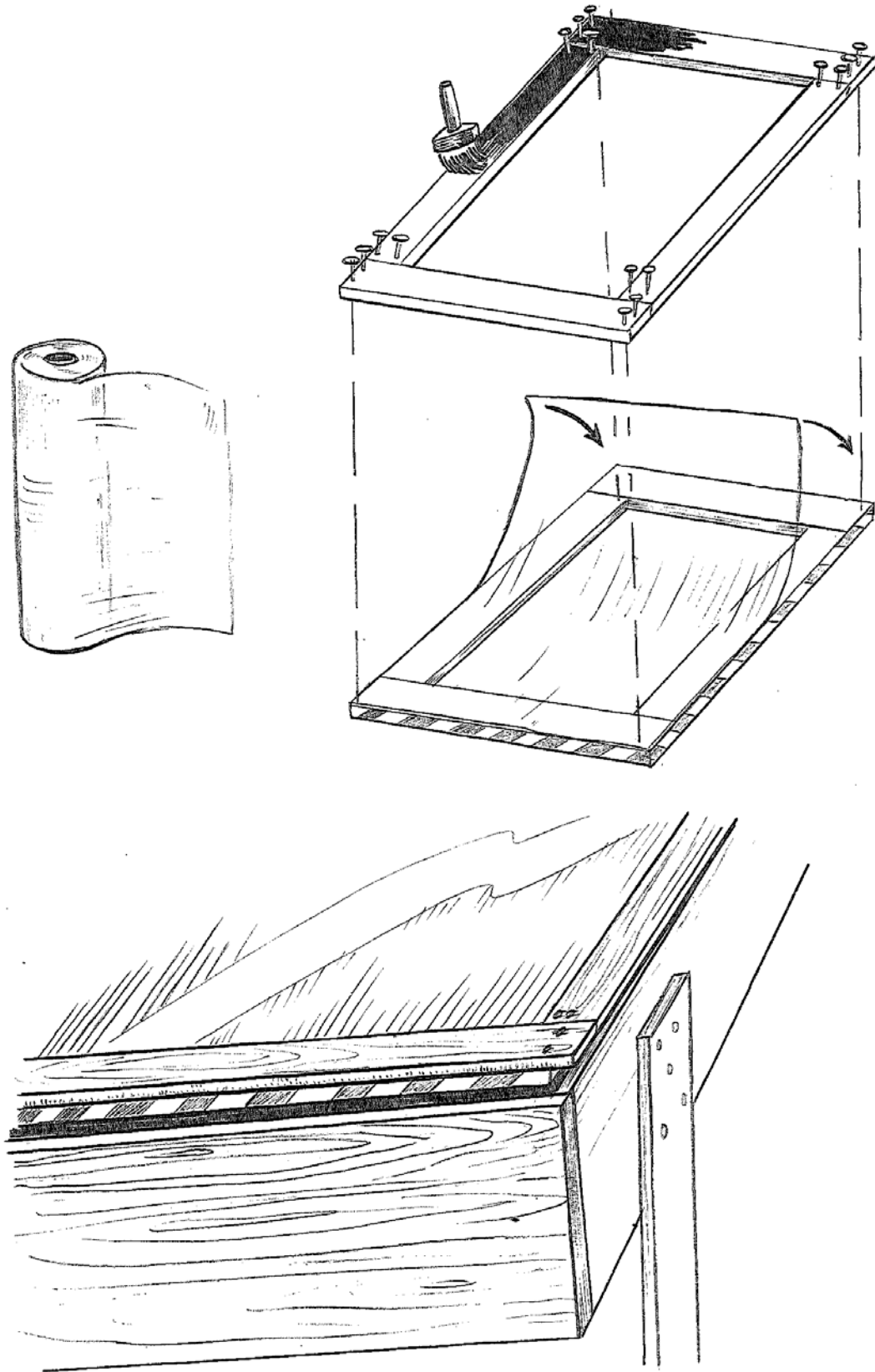


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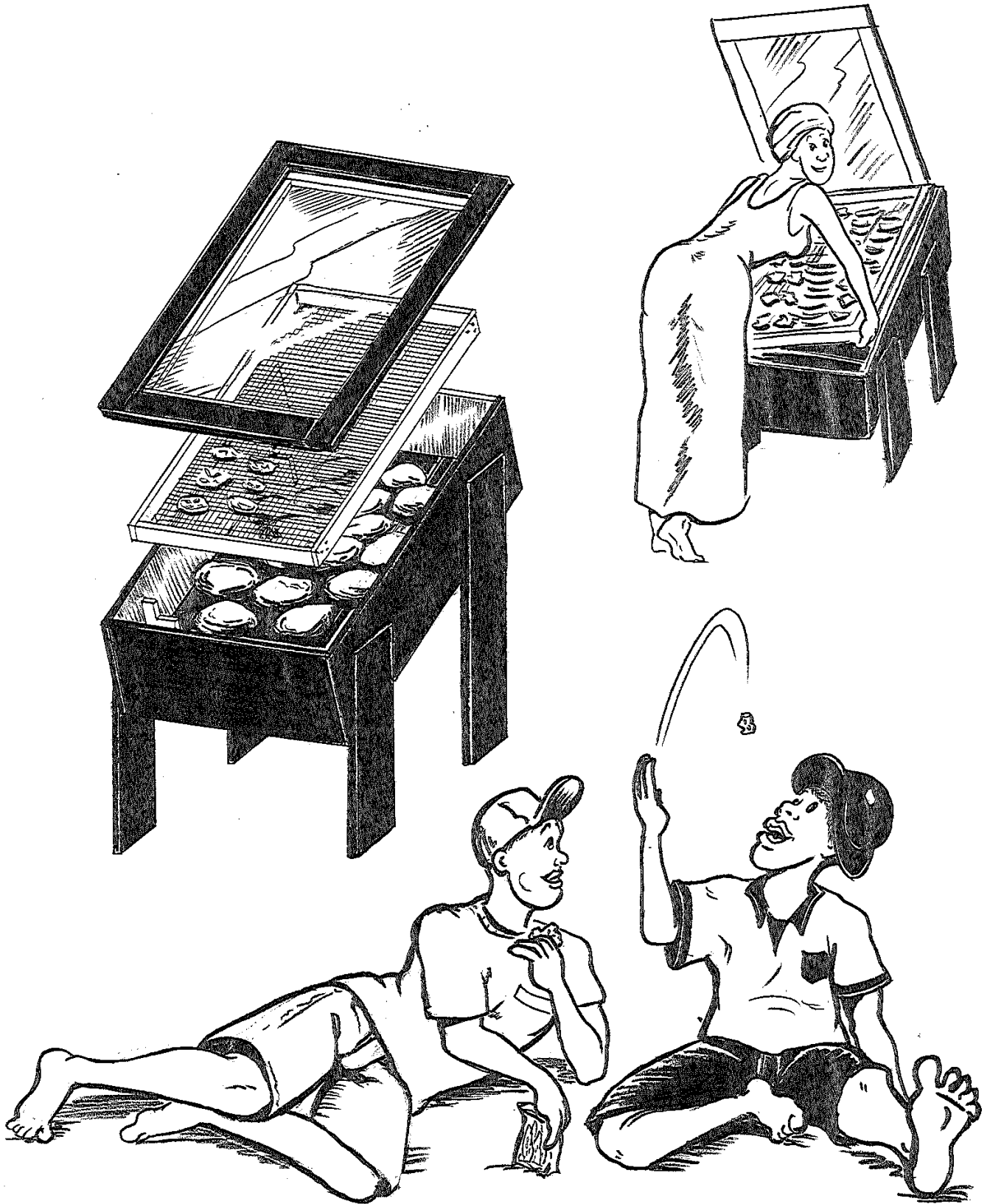




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## Video WOOD: Technical Information

### Building a Solar Box

This wooden solar box is useful to dry fruits or to cook vegetables with solar energy. It also can be made of metal. If the box is painted black and if stones are placed at the bottom of it, the heat inside the dryer will be considerably increased.

#### Means

You need an even and solid user surface. It is advisable to work with a team of two persons.

#### Tools

Tools that are required to build a solar dryer: a hammer, a pair of pliers, a graver and a saw.

#### List of the materials

First saw up the planks and slats. For the measurement refer to the pictures. Modification is possible.

For building the solar box you need wooden planks for the two lateral walls of the box, for the front side and back side and finally three planks for the bottom of the device.

You need four slats to fix the bottom and other four for the wire netting.

You must plan four planks for the feet. And for the wire netting you require four small stands and eight slats to make the lid.

Finally, you need wire or a plastic string for the wire netting, a sturdy sheet of plastic for the lid, nails and black paint.

#### How to build the box

1. Saw the planks for the lateral walls, the front side and the backside.
2. The stands of the bottom have to be nailed on the sides of the box before the assembly. Then you put the four walls together and fix them with the nails to get a box.
3. Now, you have to fix the three bottom planks with nails on the slats.
4. Then you must nail the four square stands which have to be at least 5 cm shorter than

the upper border of the side so that you can put on the drying grate.

5. Now fix the feet with screws or nails; the front feet should be shorter than the back ones so to get a sloping surface. If the box has to be moved often, it is advisable to fix them with screws, because you have to take the box by the feet to carry it.
6. Fix the slats of the wire netting.
7. When you are nailing the wire for the wire netting, do not hammer the nails completely into the slats, but curve the upper end on the wire netting. You can also put a thin slat on the small nails.
8. The lid is composed of two frames: a lower one and an upper one that is bigger. That way, the lid can't slip off the box. The four slats of the two frames are respectively nailed down flat. Now, you have to lay out the sheet of plastic on the lower frame and finally cover the smaller frame with the bigger one and fix it. Thanks to the lower frame that is covered, the box will be waterproof and protected and no insect can enter it.
9. Paint the box black; from inside, the paint allows capturing the heat in a better way, and from outside it protects the box against bad weather. Before you put the products to dry into the box, fill its bottom with stones. These stones also store the heat and regulate the humidity that evaporates from the fruits.

Because the front feet are shorter than the back ones, the sloping box is always in an optimum position to capture the sun heat.

The sliced fruits that are to be dried need 3 or 4 days to be completely dehydrated. When carefully wrapped, they can be well preserved for a year.

Dried fruit is an excellent export product; furthermore, because it can be preserved, it insures supplies of vitamins during the whole year.

## Video WOOD: Text of Soundtrack

Throughout the world, and particularly in Haiti, many objects are made out of wood with little means and simple tools. For example, here: a plane, a hammer, a right angle, and a saw.

In this workshop in Cayes-Jacmel pieces of furniture, like these chairs, are made from local and natural material. Work is carried out in teams, where each person has a precise task. Quality furniture is assembled in this way for use in the country and for exporting.

Working with wood is also an artistic endeavour. You can let your imagination run wild sculpting. Haitians are famous for their woodwork. It is a tradition, which is being carried on today thanks to young people.

The use of wood is not limited to furniture such as beds and cupboards. It also serves to make elements for house construction. Emmanuel Augustin and his team of young people demonstrate this by making doors and windows. Wood also allows you to learn by doing. You don't have to work in groups either. A carpenter can also decide to work alone.

Wood can be employed to make practical objects such as solar ovens, which, with the help of some wire netting, can be used to dry various fruits. Joseph R., a carpenter in Port-au-Prince, makes solar ovens. Here he is cutting the four sides of the main case with a saw. Then onto these four sides, on the lower half, he nails a support board so as to hold up the bottom of the case.

These boards are each five centimetres shorter than the length of each side.

The four sides are then nailed together.

The bottom of the case is made up of three planks sawn to the size of the inside of the case.

Four small pieces of wood, each with a corner cut out, serve to hold up the wire netting. These ledges are nailed inside the box to the walls and to the bottom – two on each side. The wire netting is fixed onto a frame made of four pieces of wood in such a way as to prevent the fruit from falling through.

Any sharp tool can serve to cut the wire netting.

The wire is fixed to the frame with small nails bent back.

To make carrying the netting easier, you can add a thin piece of wood to protect your hands. The frame should be slightly smaller than the inside of the case, so that you can place the wire netting inside without catching your fingers.

The cover is made up of two frames: the first, the size of the inside of the case, is made of four small pieces of wood nailed together horizontally.

Onto this you fix a clean transparent plastic sheet.

The upper frame, larger than the first, and the same size as the outside of the case, is then fixed to the first frame, with a sheet of transparent plastic placed in the middle.

Four legs are then nailed onto the box. The front legs are shorter than the back ones. This inclined position gives greater exposure to the sun.

A coat of black paint protects the case from the weather, and increases the concentration of heat inside.

Stones can also be placed inside under the netting to retain the heat.

Craftsmen in Haiti produce toys of all kinds made out of wood, bringing colour and joy to children.

It's a matter of teamwork, but also inspiration.

They are not only toys to play with, but also learning tools.

The young people at the Capricorn workshop make wooden models of boats.

You can really make anything you want out of wood, even with the simplest of tools.

Wood can become an extraordinary means of expression, where each and everyone can discover the power of imagination, as well as earn a living.

## Further Notes

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## The Campaign Package

This Campaign Package has been developed and provided by the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training, Bonn, Germany. Its purpose is to facilitate the organisation of campaigns for mobilisation and motivation of young people, and for providing them with vocational orientation and guidance. The focus is on marginalised youth in the informal sector of least developed countries.

The package consists of eight components.

The current pilot version is being provided in English only. It will be evaluated in the field. Depending on the feedback that UNESCO-UNEVOC will receive, the package will be developed further.

The activities presented in this Campaign Package are not a guarantee of monetary success. The content is based on research, examples and advice from experts. Every attempt was made to ensure accuracy, and neither the authors nor the UNESCO-UNEVOC International Centre can be held responsible for incorrect information or changing circumstances.

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## Booklets accompanying the Video Series "Learning and Working"

The video series was filmed in Haiti. We would like to express our special gratitude to the people of Haiti.

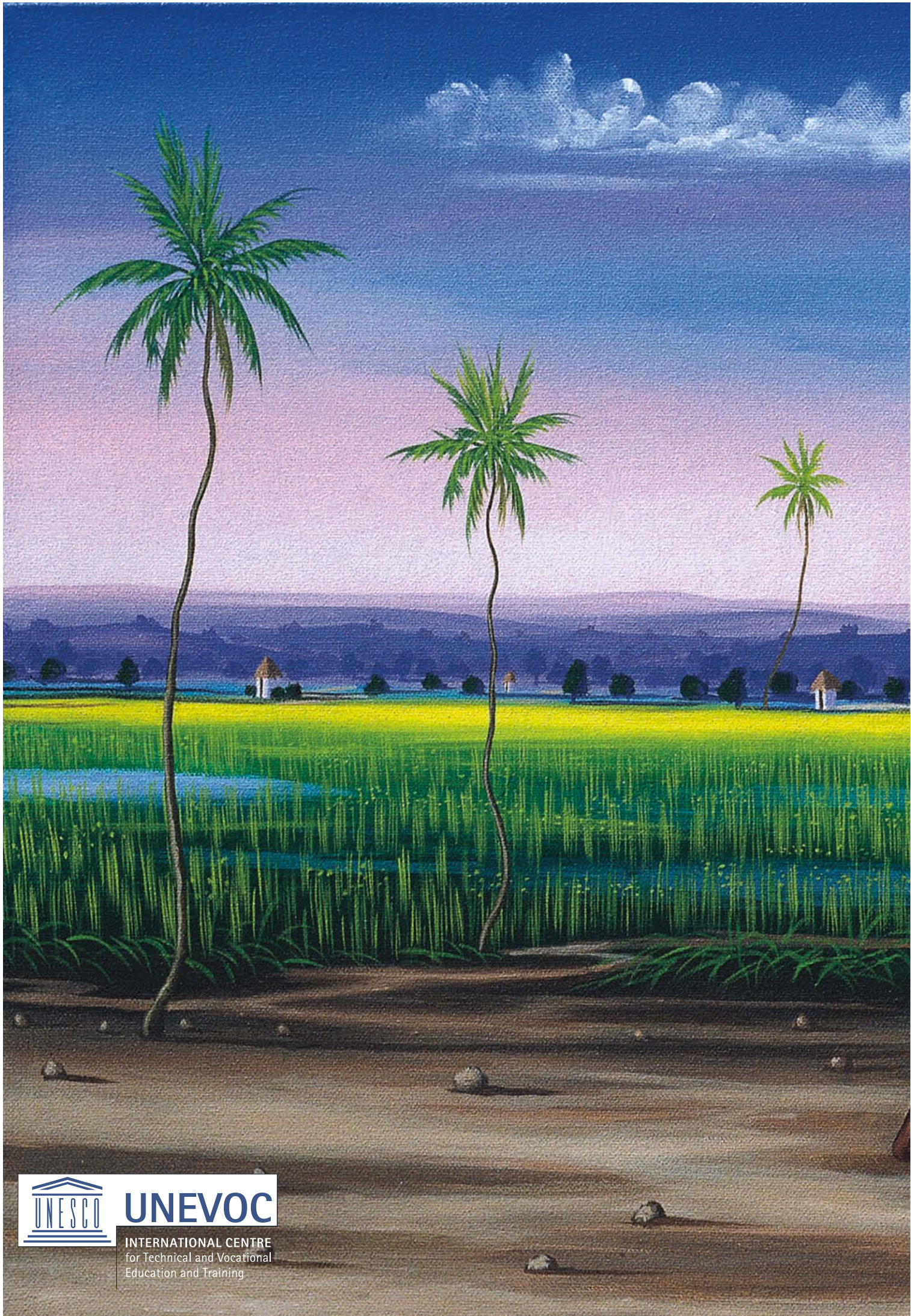
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