

FILMS UNITED NATIONS NATIONS UNIES



"SCIENCE IS DOING"

16mm, colour, 5 minutes 51 seconds

Narration Script

IMAGE

FOOTAGE

SOUND

BANGKOK STREET

000

NARRATOR:

Bangkok, capital of Thailand.

Like many Third World countries, experiencing the stresses of rapid modernization. Ahead, the challenging task of raising living standards for a population expected to double by the turn of the century.

HIGH SCHOOL STUDENTS
INTO CLASS 015

High school science students. Like their counterparts throughout the developing world, they have a special responsibility in their country's future.

CLASS ROOM 021

To ensure that students have the best scientific and technological education possible, a quiet revolution has taken place in Thailand's classrooms.

It amounts to a profound transformation in the tools and techniques of teaching science.

The aim is to encourage the widest possible understanding of the subject among the school age generation.

Three words sum up the new teaching philosophy: Science is doing.

As in most developing countries, science students in Thailand used to be passive observers. Scientific equipment was available, if at all, only for the teacher.

INSTITUTE

061

The Institute for the Promotion of Teaching Science and Technology in Bangkok is changing all that.

DEMONSTRATION OF EQUIPMENT

065

Over nearly a decade, the Institute, with UN help, has found local solutions to local problems.

Previously, most equipment - like this electrical meter - was imported. As replacements, the Institute has designed inexpensive but equally effective equipment, made from available local materials.

And it's also developed simple, do-it-yourself substitutes to be made by students and teachers themselves.

EXAMPLE OF OPTICAL EQUIPMENT

085

As a result, Thailand is virtually self-sufficient in production of school laboratory equipment. Students can learn by doing, instead of watching. The tools are at hand to unlock science's unfolding mystery..

MONTAGE OF
EQUIPMENT

095

The benefits of local manufacture are many. Jobs are created. Precious hard currency is saved. Without sacrificing quality, costs are considerably lower. And most important of all, enough can be produced to ensure each student can carry out hands-on experiments.

WINDMILL PUMPING
SALT WATER

126

The second principle of the Institute's approach - linking teaching to actual conditions in the country.

These traditional windmills are a familiar sight in the coastal lowlands.

They are examples of local technology that can add life to the school curriculum.

EXPERIMENTAL MODEL
WINDMILL

145

This model of a windmill is being developed to explain the physical principles of windpower.

TEXT BOOK ARTISTS
AND TEXTBOOKS

154

The thinking behind the development of textbooks shares the same philosophy.

Across all the science subjects, courses are designed to fit in with actual conditions in Thailand.

Textbooks and equipment are tested in real classrooms before being issued.

Teachers throughout the country are trained in all aspects of the new techniques.

CLASS IN PADDY FIELD

169

Bringing knowledge to inquiring young minds.

This is the biology curriculum in action.

A lesson in a paddy field, bringing vividly to life the growing of rice and use of insecticides, fertilizers and new plant varieties.

AGRICULTURAL FAIR

188

A new generation, better educated in science.

The end result will be seen in society itself - science and technology are a vital component in agriculture, for example a matter of considerable interest at this agricultural fair.

Thailand's approach holds lessons for many countries.

A practical, down-to-earth educational system ensuring the scientific attitude becomes part of the mainstream of a nation's life.

LAST FRAME

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