SmartFish
Working Papers

No 002

Set of images for Training and Community Trainers Manual on Fish Handling, Quality and Processing, English version

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Funded by
European Union

PRESENTATION SKILLS 1. COMMUNICATION

SPEAK CLEARLY, SLOWLY AND NICE AND LOUD

WHAT YOU SAY…KEEP IT SIMPLE!

BE SMART, ENTHUSIASTIC AND MAKE EYE CONTACT

PRESENTATION SKILLS 2. DURING TRAINING

HANDOUTS ARE GOOD THEY HELP PEOPLE REMEMBER

BE PARTICIPATORY, ALWAYS EVALUATE YOUR TRAINING, ENCOURAGE QUESTIONS

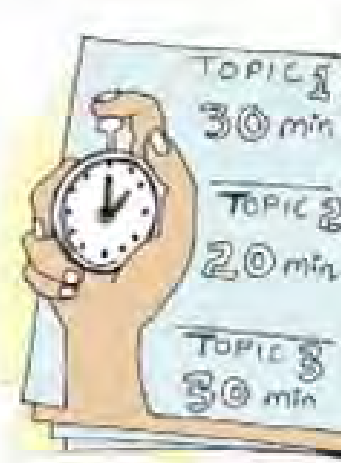
SHOW ENTHUSIASM

USE DISCUSSION GROUPS

PRESENTATION SKILLS 3. PREPARING FOR TRAINING

CHOOSE A LOCATION WHICH IS QUIET, COOL AND LIGHT. U SHAPED SEATING IS GOOD

MAKE SURE TIMING AND DURATION IS GOOD



PRACTICE MAKES PERFECT!

FISH SPOILAGE 1.PRODUCE GOOD QUALITY SAFE FISH

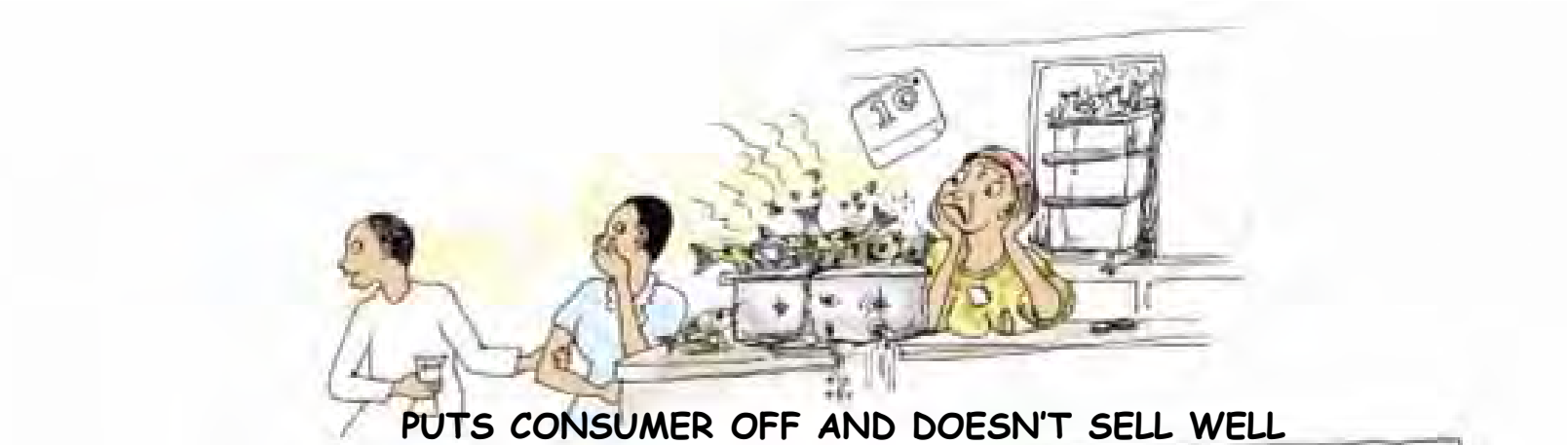
TASTY AND MAKES YOU HAPPY

MAKE MORE MONEY

MAKES YOU STRONG AND HEALTHY

SELL IN DIFFERENT MARKETS

FISH SPOILAGE 2. BAD FISH IS NOT GOOD FOR US

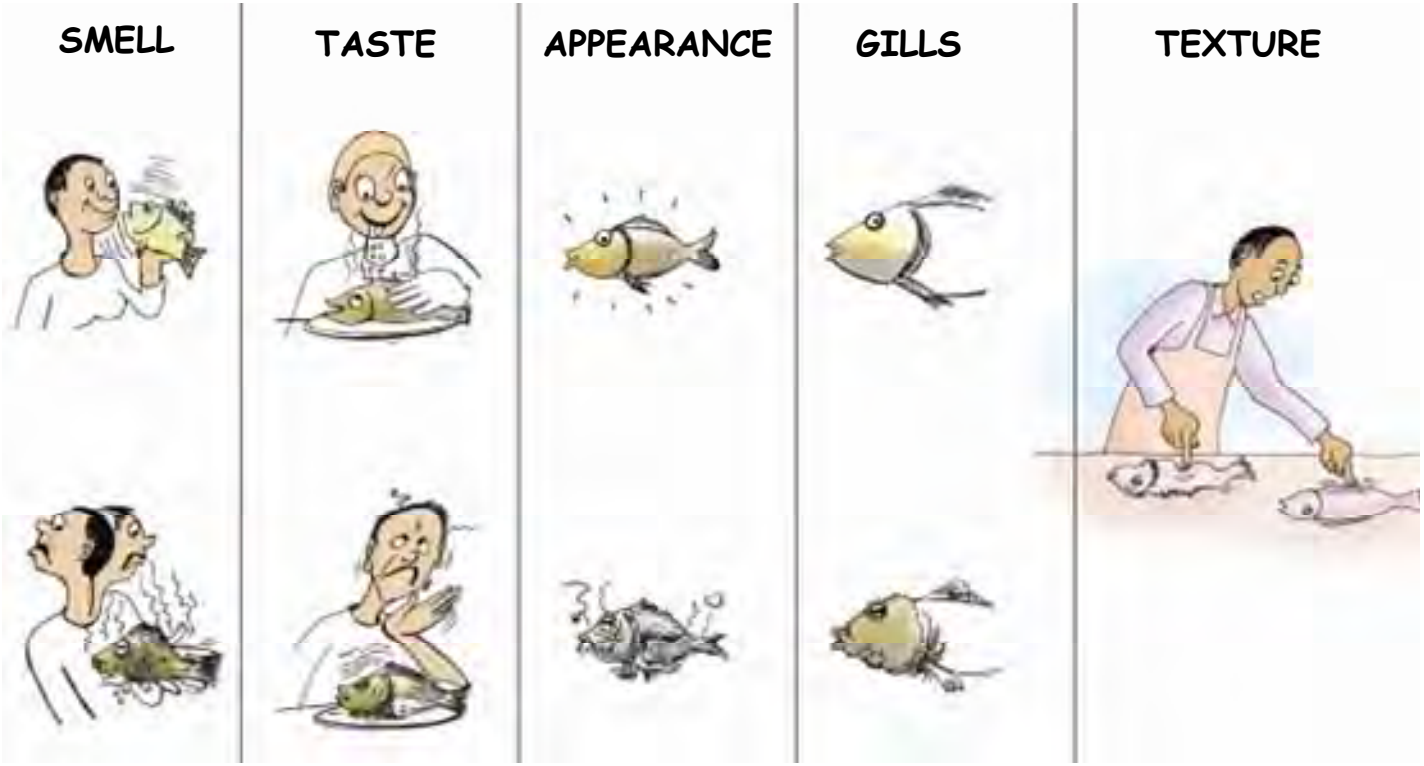


PUTS CONSUMER OFF AND DOESN'T SELL WELL

CAN MAKE YOU VERY ILL!

MAKES YOU ILL

FISH SPOILAGE 3. HOW DO WE KNOW FISH IS GOOD OR BAD



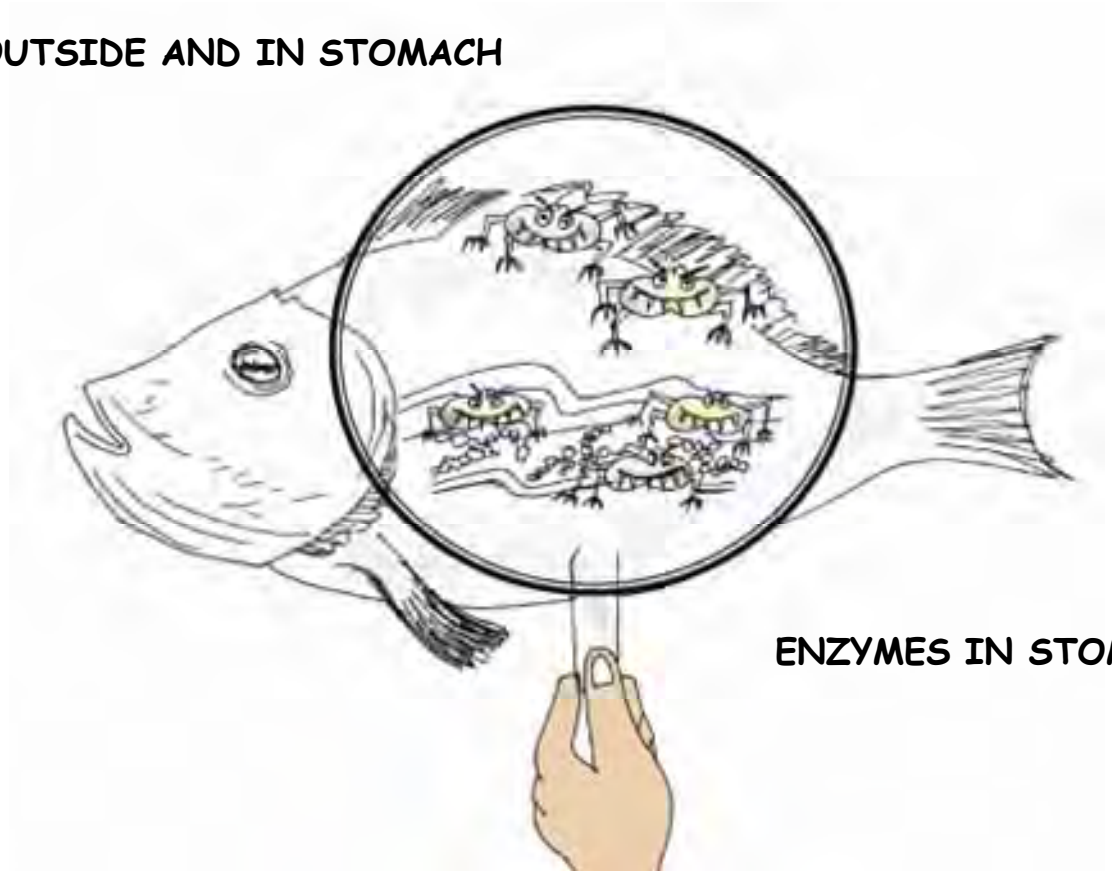
FISH SPOILAGE 4. WHAT MAKES FISH SPOIL?

BACTERIA

ENZYMES

FISH SPOILAGE 5. WHERE ARE BACTERIA AND ENZYMES

BACTERIA ON OUTSIDE AND IN STOMACH



ENZYMES IN STOMACH

FISH SPOILAGE 6. BACTERIA ARE FOUND IN DIRTY PLACES

DIRTY TOILETS

DIRTY CLOTHES AND FEET

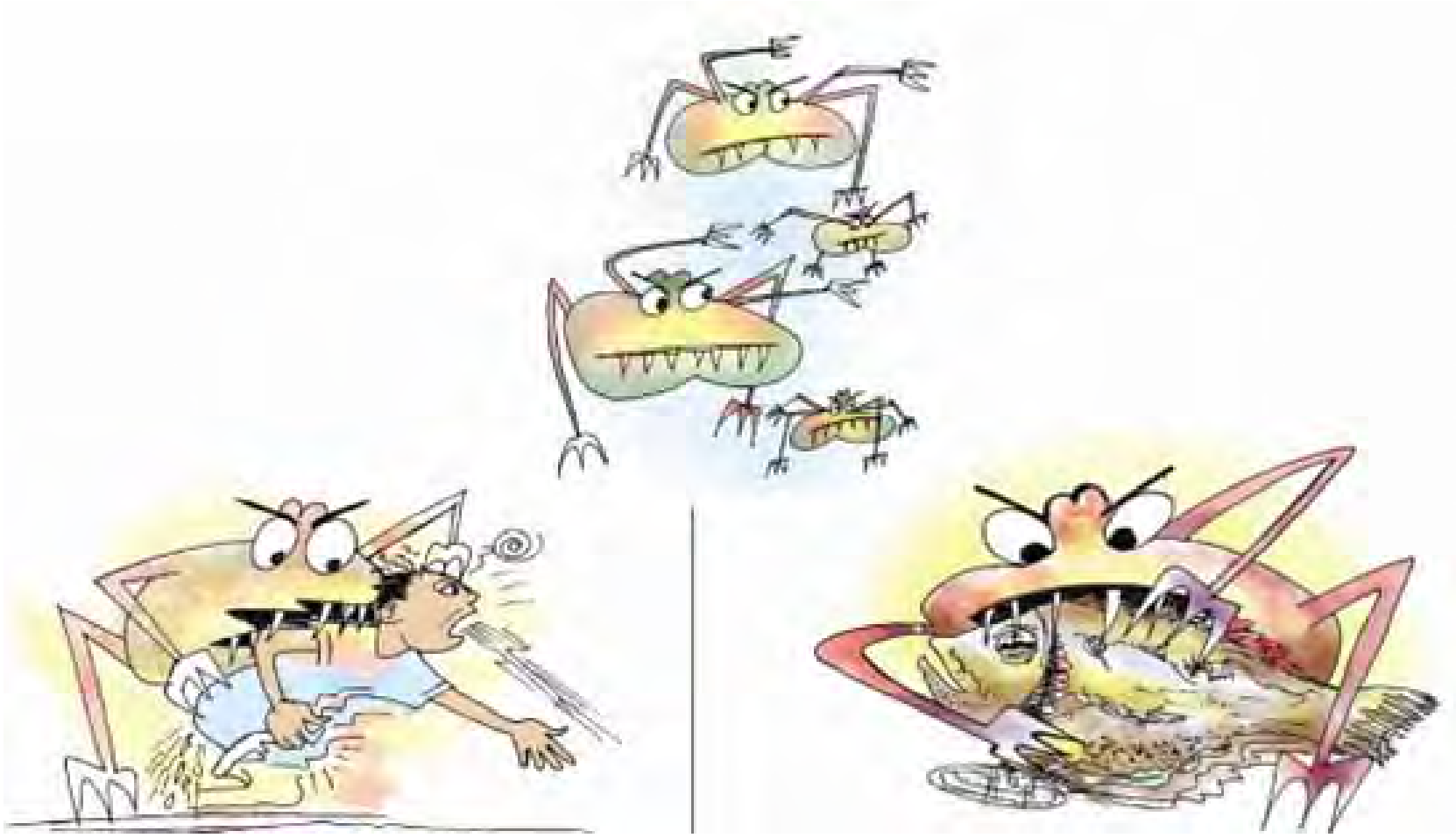
ANIMALS

IN THE AIR

HANDS

INSECTS

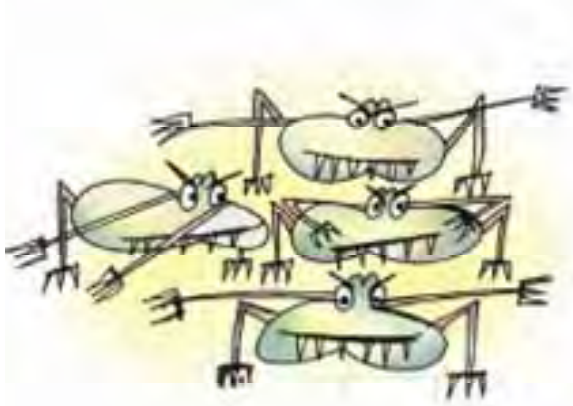
FISH SPOILAGE 7. TWO TYPES OF BACTERIA



MAKE YOU SICK

MAKE FISH SPOIL

FISH SPOILAGE 8. WHAT DO BACTERIA LIKE



WATER

WARMTH

FOOD

FISH SPOILAGE 9. WHAT BACTERIA DON'T LIKE

DRY CONDITIONS

VERY HOT TEMPERATURES

COLD

FISH SPOILAGE 10. BAD HANDLING CAUSES SPOILAGE

DON'T STAND ON FISH OR DROP IT

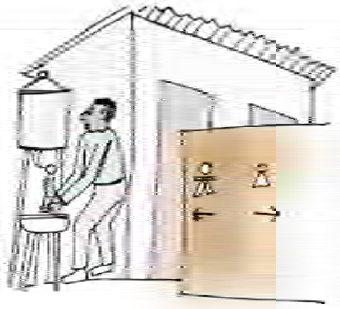
DON'T THROW FISH

BADLY HANDLED FISH IS NOT GOOD FOR US

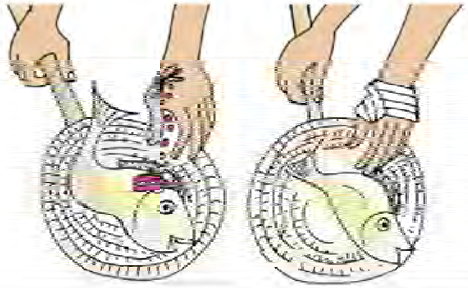
NOT THAT FISH…NO THANKS!

PERSONAL HYGIENE 1. GOOD PRACTICES

WASH HANDS BEFORE WORKING AND AFTER TOILET



GOOD PERSONAL HYGIENE STOPS US PASSING BACTERIA AND DIRT ONTO THE FISH



COVER WOUNDS OR CUTS

NO SMOKING OR SPITTING!

PERSONAL HYGIENE 2. WASH HANDS AFTER TOILET

CARRY WATER AND SOAP

WASH HANDS TO PREVENT BACTERIA AND DIRT GETTING ON FISH

PERSONAL HYGIENE 3. WHAT TO DO IF YOU ARE SICK

IF YOU ARE SICK YOU MIGHT HAVE SOMETHING WHICH CAN MAKE THE FISH DANGEROUS TO EAT

GO TO THE DOCTOR

REST UNTIL YOU ARE BETTER

WHEN YOU ARE BETTER GO BACK TO WORK

PERSONAL HYGIENE 4. BAD HABITS TO AVOID

BAD HABITS CONTAMINATE FISH WITH BACTERIA AND DIRT

USE OF ICE 1. BAD ICING PRACTICE

NOT ENOUGH ICE

LARGE PIECES DAMAGE AND DONT CHILL WELL

DIRTY ICE ADDS BACTERIA AND DIRT

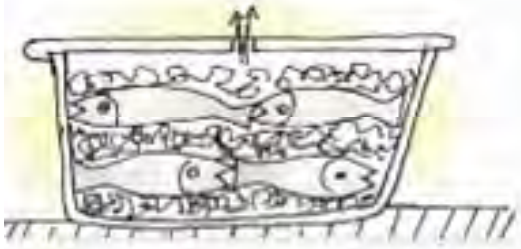
DIRTY WATER MAKES DIRTY ICE

HEAT WASTES ICE AND MONEY!

OLD ICE HAS BACTERIA AND DIRT..DONT USE IT!

USE OF ICE 2. GOOD ICING PRACTICE

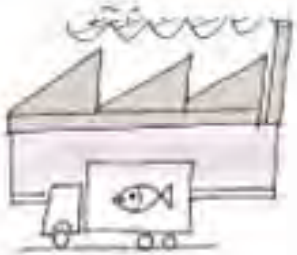
COVER FISH WELL



LAYER OF ICE LAYER OF FISH

KEEP ICE IN PROPER STORE TO KEEP IT CLEAN AND STOP MELTING

IF NO ICE TRY EVAPORATIVE COOLING



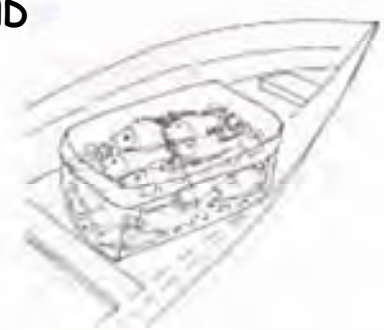
ICE FROM AN ICE PLANT IS BEST

USE OF ICE 3. INSULATED BOXES

KEEPS FISH COOL FOR LONGER

PROTECTS FISH

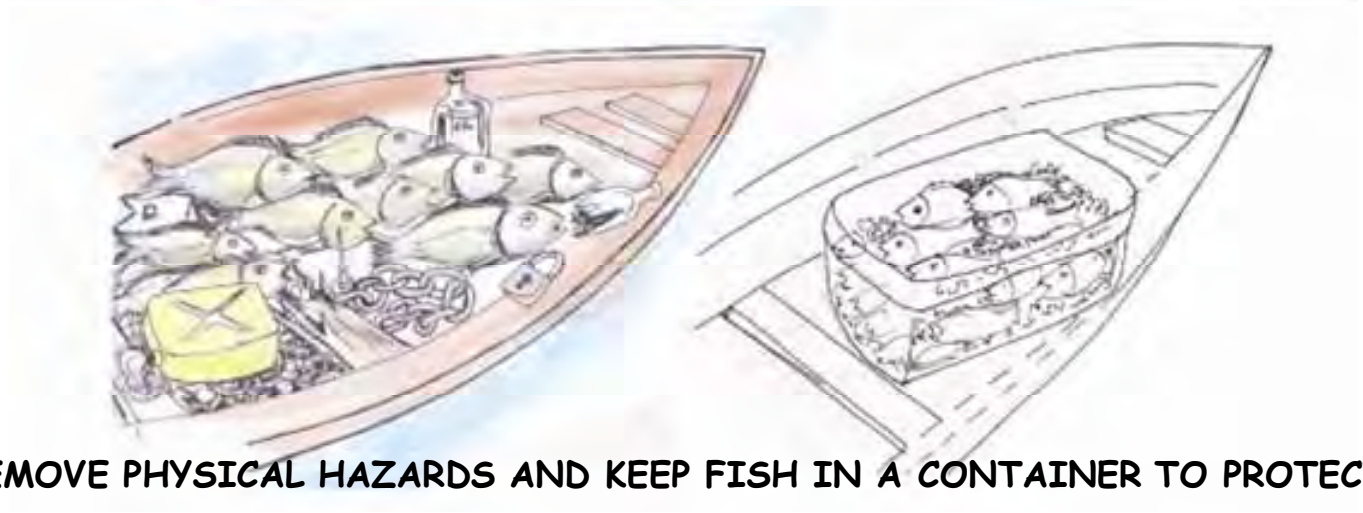
USED ON BOAT AND LAND



HELPS MARKETING AND PRICING

FISHING 1. PHYSICAL HAZARDS

GET STUCK IN FISH AND MAKE IT DANGEROUS TO EAT



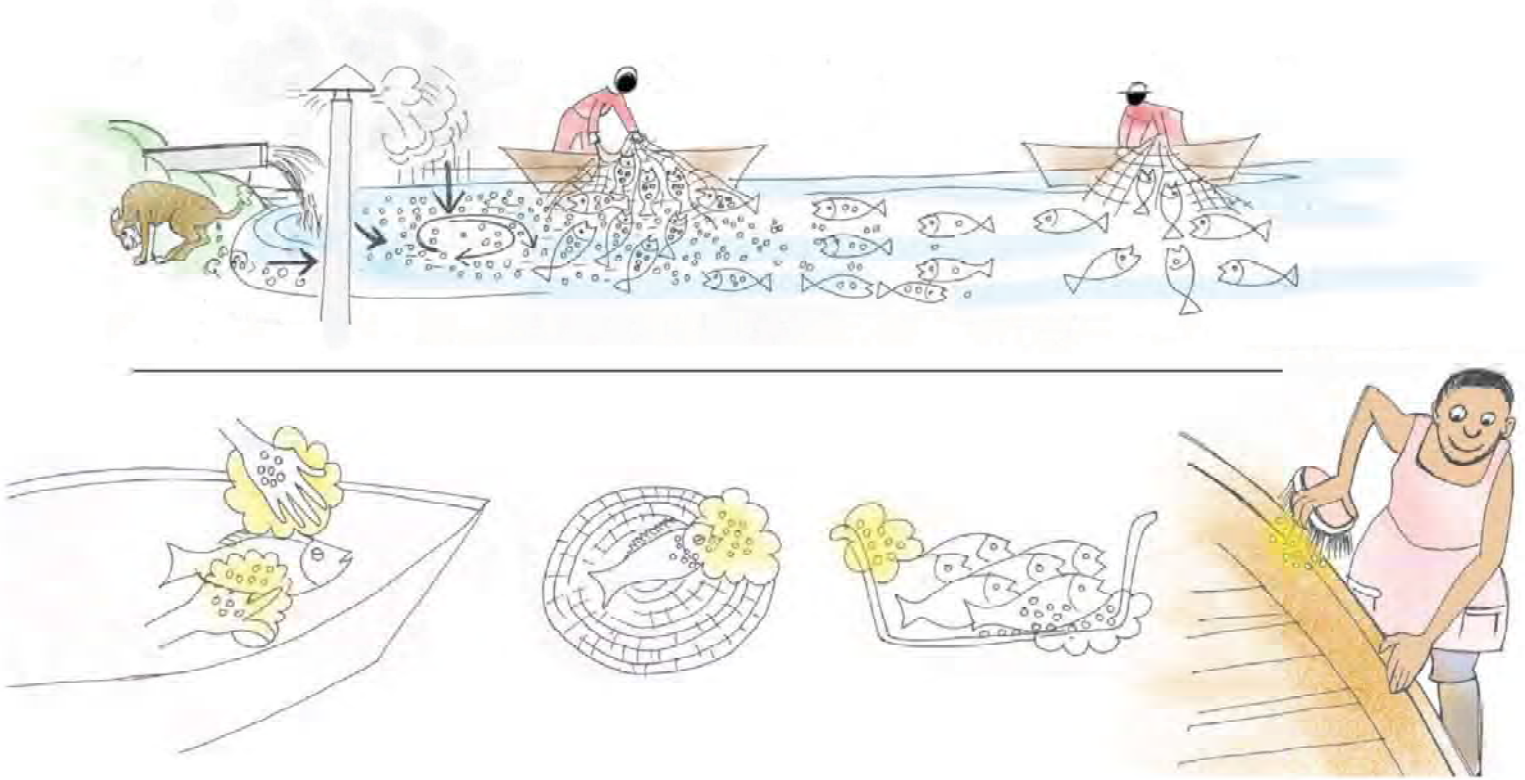
REMOVE PHYSICAL HAZARDS AND KEEP FISH IN A CONTAINER TO PROTECT IT

FISHING 2. CHEMICAL HAZARDS

CATCHING FISH IN DIRTY OR POLLUTED WATER CAN MEAN THE FISH IS ALSO DIRTY AND CAN HARM THE CONSUMER

FISHING 3. BIOLOGICAL HAZARDS

BACTERIA, VIRUSES AND SOME POISONS CAN CONTAMINATE FISH IN WATER AND AFTER CATCHING



DIRTY BOAT, GEAR AND EQUIPMENT CONTAMINATES FISH…SO KEEP IT CLEAN!

FISHING 4. SPOILAGE FACTORS

BAD HANDLING DURING HAULING AND HIGH TEMPERATURE

LEAVING FISH IN WATER

BAD HANDLING ON BOARD

CONTAMINATION

FISHING 5. CLEANING

KEEP BOAT CLEAN

CLEAN YOUR GEAR

CLEAN EQUIPMENT MEANS CLEAN FISH

LANDING SITE 1. POOR PRACTICE

BAD PRACTICE CAUSES POOR QUALITY AND MAY HARM THE CONSUMER

LANDING SITE 2. GOOD PRACTICE

GOOD FACILITIES & PRACTICES HELPS MAINTAIN QUALITY AND MAKES FISH SAFE TO EAT

PROCESSING 1. POOR PRACTICE

POOR QUALITY IN POOR QUALITY OUT!

POOR QUALITY CAUSES BREAKAGES

DRYING ON GROUND ADDS DIRT AND BACTERIA

POOR ENVIRONMENT MEANS POOR QUALITY AND LACK OF CUSTOMERS

INSECTS CAUSE LOSSES

PROCESSING 2. GOOD PRACTICE

PROCESS GOOD QUALITY FISH

WASH FISH IN CLEAN WATER

USE RAISED RACKS

GOOD WASTE DISPOSAL

IMPROVED TECHNOLOGY PRODUCES BETTER QUALITY

KEEP EQUIPMENT CLEAN

KEEP AREA CLEAN AND WASH IT

PROCESSING 3. PACKING AND STORAGE

STORES SHOULD BE SECURE, WEATHERPROOF AND HAVE GOOD AIR FLOW

PACK IN A CLEAN PLACE WITH GOOD CLEAN PACKAGING

NEVER USE INSECTICIDES OR DANGEROUS CHEMICALS

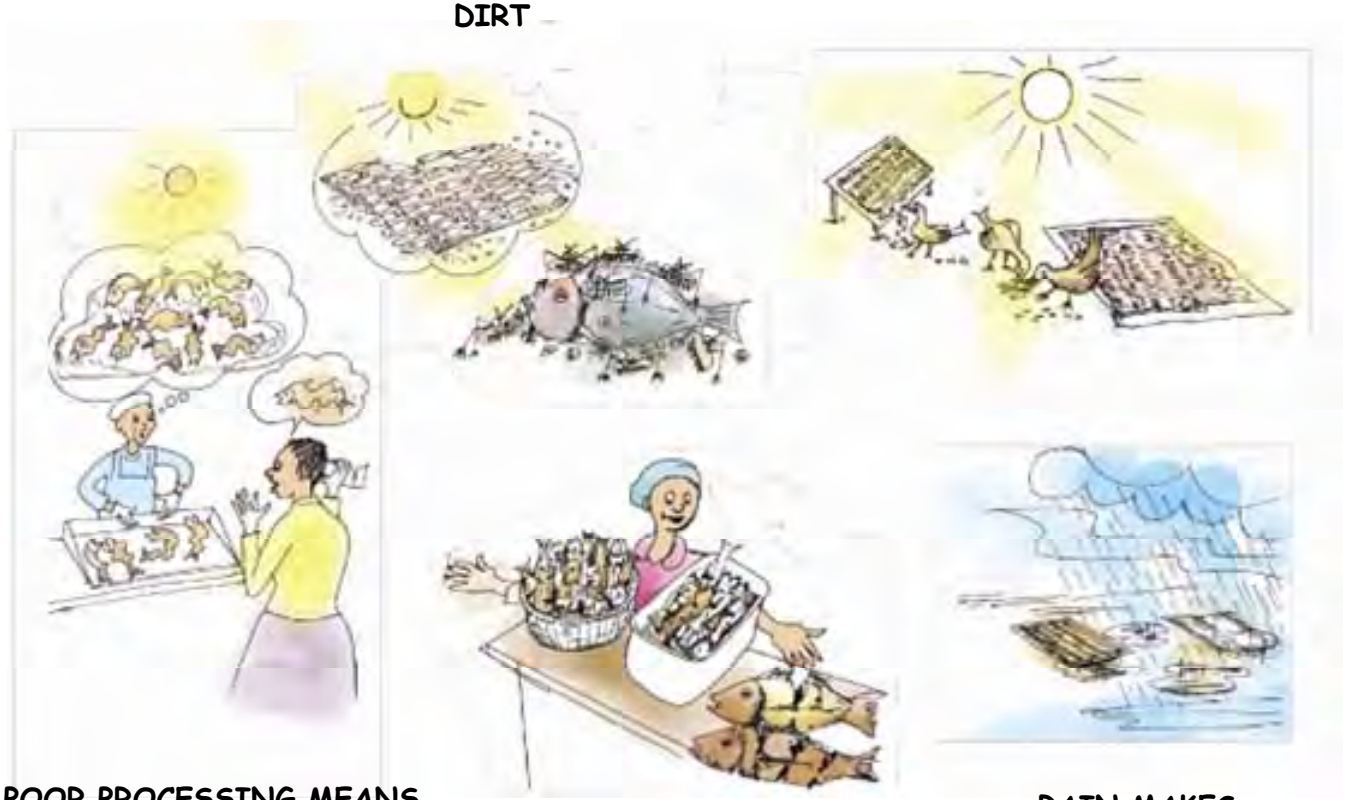
LABELS ADD-VALUE AND GIVE CONSUMER CONFIDENCE

LAKE SARDINE 1. FISH SPECIES

LAKE SARDINE 2. BAD PRACTICES

DRYING ON GROUND ADDS BACTERIA & DIRT

LOSSES CAUSED BY ANIMALS



POOR PROCESSING MEANS POOR QUALITY

POOR PACKING AND PACKAGING CAUSES DAMAGE

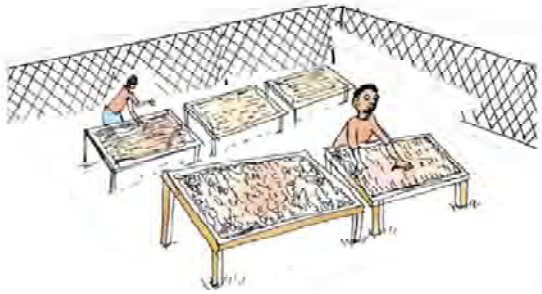
RAIN MAKES DRYING DIFFICULT

LAKE SARDINE 3. FISHING

LAKE SARDINE 4. GOOD DRYING

WASH IN CLEAN WATER TO REMOVE DIRT, SAND AND BACTERIA. SOAKING IN SALTED WATER (BRINE) HELPS PREVENT COLOUR CHANGE AND IMPROVES TASTE.

RAISED RACKS PROTECT FROM ANIMALS. TURN FISH BY HAND TO SPEED UP DRYING.



DRYING TRAYS MAKE IT EASY TO MOVE AND STORE FISH

FROZEN FISH 1. BAD FREEZING

POOR QUALITY IN
POOR QUALITY OUT!

POOR HANDLING MEANS
POOR QUALITY
PRODUCTS

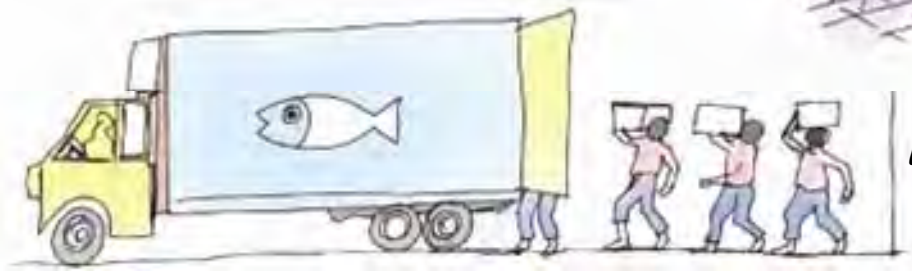
OVER FILLING MEANS
POOR QUALITY AND
HIGH ENERGY COSTS

FROZEN FISH WILL THAW AND SPOIL IF NOT
TRANSPORTED WELL

FROZEN FISH 2. GOOD FREEZING

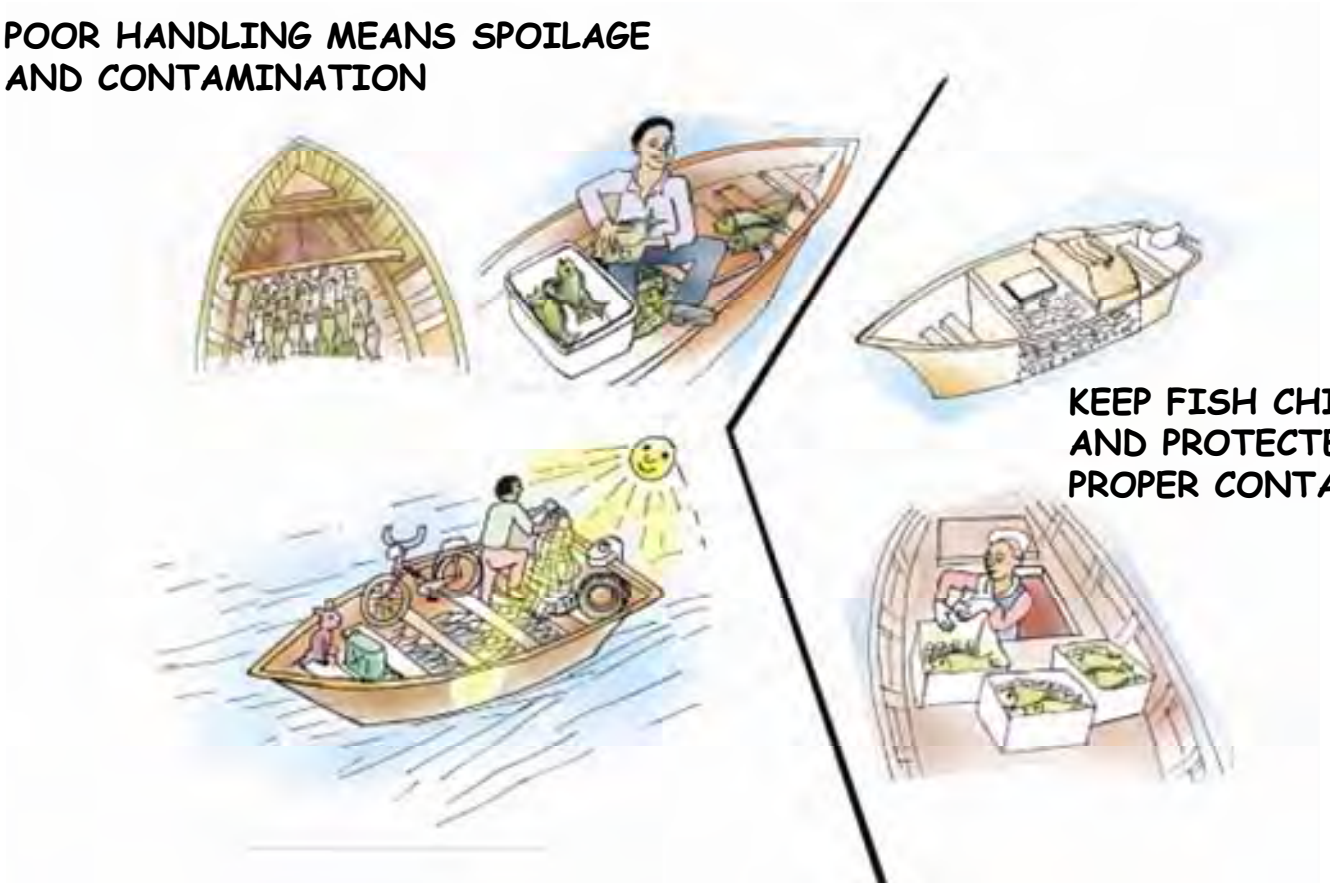
CHILL, WASH AND PACK
BEFORE FREEZING

FROZEN FISH SHOULD BE
STORED IN A COLD STORE

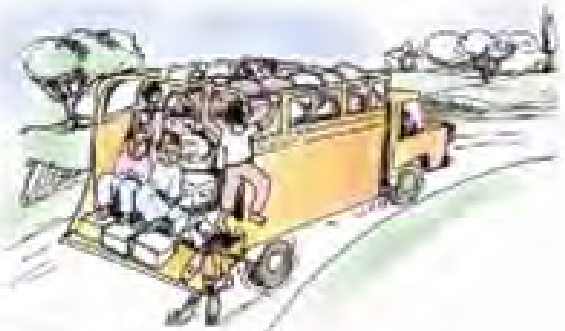


MAINTAIN THE COLD CHAIN

TRANSPORT 1. WATER TRANSPORT



TRANSPORT 2. ROAD TRANSPORT



BAD TRANSPORT CAUSES DAMAGE AND SPOILAGE

USE ICE, CLEAN CONTAINERS AND PROPER VEHICLES TO MAINTAIN QUALITY

FISH SELLING 1. BAD PRACTICE

BAD PRACTICES CAUSE SPOILAGE AND MAKES FISH DANGEROUS TO EAT

CONSUMERS DONT LIKE VISITING BAD PLACES!

FISH SELLING 2. GOOD PRACTICE

A PROPER CLEAN MARKET HELPS KEEPS QUALITY

CONSUMERS LIKE TO BUY FISH IN A GOOD PLACE

FISH FARMING 1. GROWING

WHERE AND HOW YOU FARM AFFECTS QUALITY

CAREFUL HANDLING GIVES GOOD QUALITY

GRADING EQUIPMENT REDUCES HANDLING AND DAMAGE

GOOD QUALITY FEED STORED WELL MEANS FISH ARE HEALTHY AND GOOD TO EAT

FISH FARMING 2. HARVESTING

HARVEST WHEN COOL AND USE PROPER EQUIPMENT

USE PROPER CONTAINERS AFTER HARVESTING

WASH USING CLEAN WATER AND ICE

USE PROPER TRANSPORT

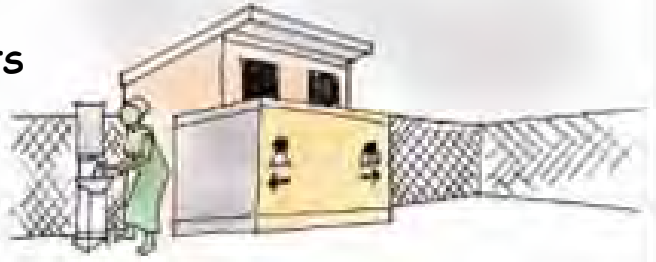
FISH FARMING 3. HYGIENE

CLEANLINESS PROTECTS FISH FROM HARMFUL BACTERIA

WEAR CLEAN CLOTHES

WASH HANDS BEFORE AND AFTER HANDLING FISH

USE PROPER TOILETS



KEEP EQUIPMENT CLEAN

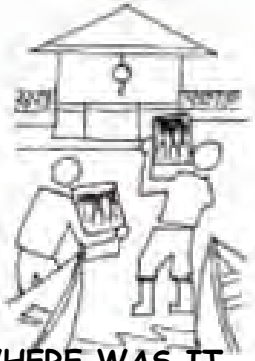
RECORD KEEPING 1. WHAT TO CHECK FOR

CHECK TO MAKE SURE FISH IS HANDLED WELL AND IN A GOOD ENVIRONMENT….CHECKLISTS CAN HELP WITH THIS

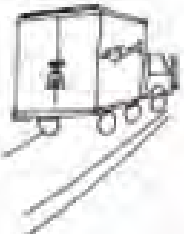
RECORD KEEPING 2. TRACEABILITY

KNOW WHERE FISH COMES FROM SO THAT WE CAN KNOW WHERE PROBLEMS MAY OCCUR

WHO CAUGHT IT?
WHERE WAS IT CAUGHT?
WHEN WAS IT CAUGHT?



WHERE WAS IT LANDED?
WHAT WAS ITS QUALITY?



WHO TRANSPORTED IT?
HOW WAS IT TRANSPORTED?

WHERE WAS IT PROCESSED?
AND HOW?

La bonne gouvernance et la bonne gestion des pêches et de l'aquaculture permettent d'améliorer la contribution du secteur à la sécurité alimentaire, au développement social, à la croissance économique et au commerce régional ; ceci en assurant par ailleurs une protection renforcée des ressources halieutiques et de leurs écosystèmes.

La Commission de l'Océan Indien (COI) ainsi que la COMESA (Common Market for Eastern and Southern Africa), l'EAC (East African Community) et l'IGAD (Inter-Governmental Authority on Development) ont développé des stratégies à cette fin et se sont engagés à promouvoir la pêche et l'aquaculture responsable.

SmartFish supporte la mise en œuvre de ces stratégies régionales en mettant l'accent sur le renforcement des capacités et des interventions connexes visant à :

- la mise en œuvre d'un développement et d'une gestion durables des pêcheries ;
- le lancement d'un cadre de gouvernance pour les pêcheries durables dans la région;
- le développement d'un suivi-contrôle-surveillance efficace pour les ressources halieutiques transfrontalières ;
- le développement de stratégies commerciales régionales et la mise en œuvre d'initiatives commerciales;
- l'amélioration de la sécurité alimentaire à travers la réduction des pertes post-capture et la diversification.

SmartFish est financé par l'Union Européenne dans le cadre du 10ème Fond Européen de Développement.

SmartFish est mis en œuvre par la COI en partenariat avec la COMESA, l'EAC et l'IGAD et en collaboration avec la SADC. Une collaboration étroite a également été développée avec les organisations régionales de pêche de la région. L'assistance technique est fournie par la FAO et le consortium Agrotec SpA.

By improving the governance and management of our fisheries and aquaculture development, we can also improve food security, social benefits, regional trade and increase economic growth, while also ensuring that we protect our fisheries resources and their ecosystems.

The Indian Ocean Commission (IOC), the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC) and the Inter-Governmental Authority on Development (IGAD) have developed strategies to that effect and committed to regional approaches to the promotion of responsible fisheries and aquaculture.

SmartFish is supporting the implementation of these regional fisheries strategies, through capacity building and related interventions aimed specifically at:

- implementing sustainable regional fisheries management and development;
- initiating a governance framework for sustainable regional fisheries;
- developing effective monitoring, control and surveillance for trans boundary fisheries resources;
- developing regional trade strategies and implementing regional trade initiatives;
- contributing to food security through the reduction of post-harvest losses and diversification.

SmartFish is financed by the European Union under the 10th European Development Fund.

SmartFish is implemented by the IOC in partnership with the COMESA, EAC, and IGAD and in collaboration with SADC. An effective collaboration with all relevant regional fisheries organisations has also been established. Technical support is provided by Food and Agriculture Organization (FAO) and the Agrotec SpA consortium.

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