



IPB University
— Bogor Indonesia —



DEPARTEMEN
ILMU KELUARGA DAN KONSUMEN
Building Human Capital For Better Lives



MANAGING ENVIRONMENTAL RESOURCES



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Course Description



This course discusses the theories, concepts and processes of family resource management. Furthermore, the basic concepts of management such as values, goals, needs, resources, decision making, problem solving on how a plan can be implemented are also discussed; implementation of resource management in the family; family well being and ends with how families face the digital age





LEARNING OUTCOME

After completing this course:

1. Students are able to master the concept of family resource management
2. Students are able to analyze the management of various family resources critically, creatively, communicatively, collaboratively and by upholding character values
3. Students are able to plan the management of various family resources in various family life cycles



LEARNING OUTCOME THIS SESSION

Students are able to explain environmental problems and design environmental resource management processes that can be carried out by families



MAIN TOPICS

The ecosystem and environmentalism

- Problem recognition
- Biological diversity
- Individual & family decision making

Environmental problems & solutions

- Water
- Energy
- Noise
- Waste & recycling
- Air quality



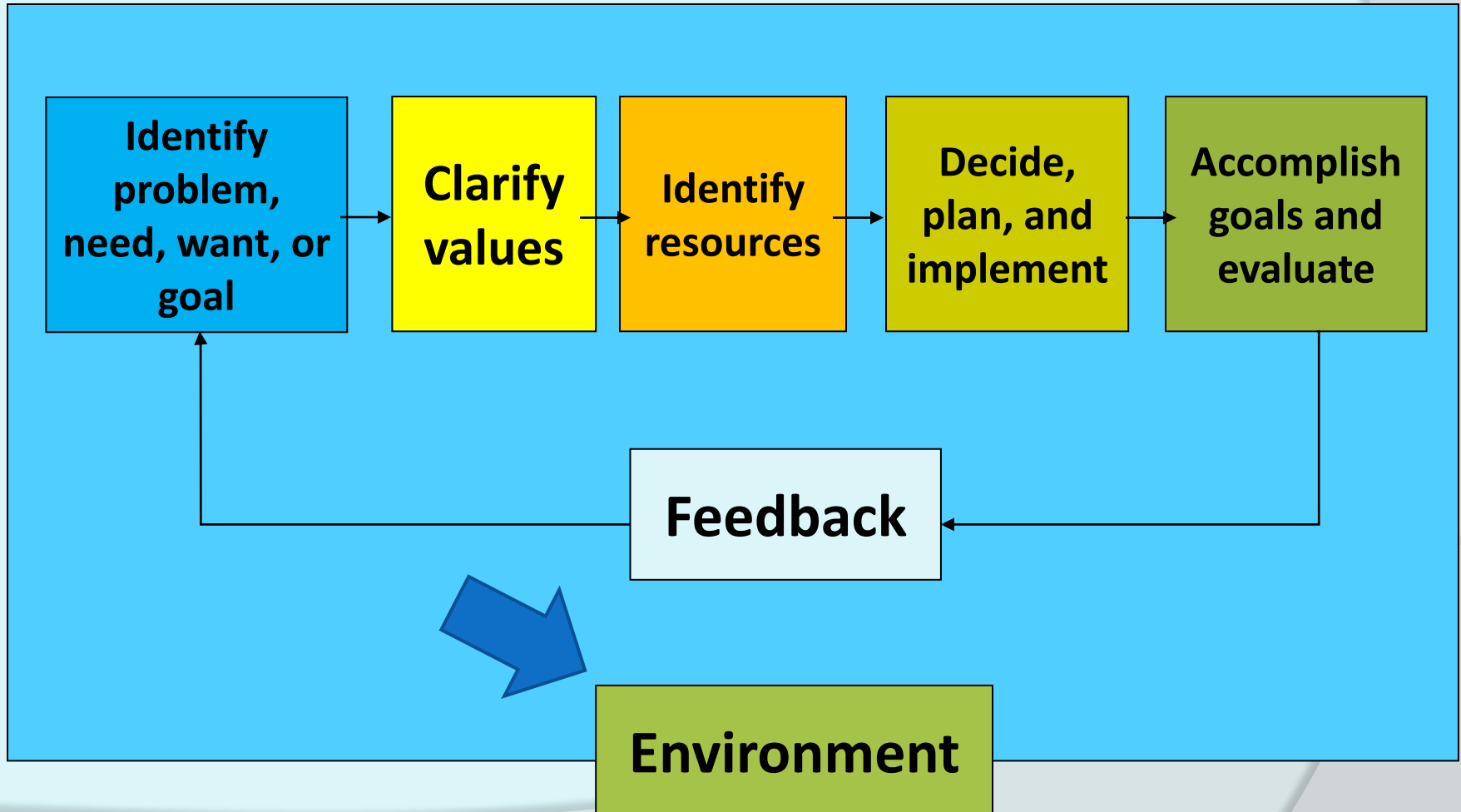
Discussed.....



Environmental issue, such as:

- ◉ The degree of ecological footprint
- ◉ Practical suggestions for specific environmental problems

The management process model



THE ECOSYSTEM AND ENVIRONMENTALISM

- ① **Ecosystem:** the subsystem of ecology that emphasizes the relationship between organism & their environment
- ① **Habitat:** the place where an organism lives
- ① **Environmentalism:** concern for the environment
- ① **Ecoconsciousness:** the thoughts and actions given to protecting and sustaining the environment
- ① **Conservation:** the act or process of preserving and protecting natural environments from loss or depletion

Resources..

- ⦿ Social environmental resources
(societies, economic and political groups, community organizations)
- ⦿ Physical environmental resources
(natural tangibles e.g. trees, soil, and ocean)

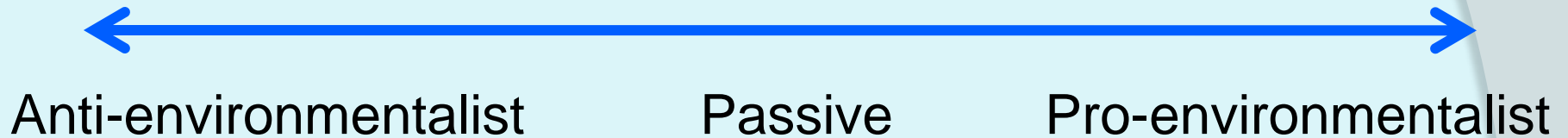
15 Permasalahan Lingkungan Hidup Indonesia

1. Permasalahan Sungai Yang Tercemar
2. Kerusakan Hutan
3. Banjir
4. Abrasi
5. Pencemaran Udara
6. Menurunnya Keanekaragaman Hayati
7. Pencemaran Tanah
8. Permasalahan Sampah Yang Menumpuk

9. Rusaknya Ekosistem Laut
10. Pencemaran Air Tanah
11. Pemanasan Global
12. Langkanya Air
13. Pencemaran Suara
14. Berkurangnya Daerah Resapan Air
15. Bangunan-Bangunan Liar dan Kumuh

<https://dlhk.bantenprov.go.id/upload/dokumen/15%20Permasalahan%20Lingkungan%20Hidup%20Indonesia%20dan%20Penyebabnya.pdf>

Problem Recognition



DEFINITION

When individuals or family perceives a significant difference between the lifestyle practiced and some desired or ideal lifestyle

A problem can arise in one of two ways:

Need recognition >> realizes how much he/she needs a certain product, service, or condition

Opportunity recognition >> realizes that she/he may have limited to a product, service, or condition

Biological Diversity

DEFINITION

- ⦿ A multidimensional concept encompassing the variety and variability among living organisms and the ecological complexities
- ⦿ Part of study called environmental ethics

Ethics = systems of morals, principles, values, or good conduct

Individual & Family Decision Making

- ⦿ Greater share of responsibility for environment
- ⦿ Relying less on larger institutions
- ⦿ Many people cannot be depended on to solve all the environment (ex. Consumption & disposal practices of individuals & families contribute to the waste stream)

Waste stream = all garbage or trash produced

Environmental decision making..

- Considering the range of values, resources, goals, and decision making steps

**Recycling programs >>
a significant factor in the
success of conservation
programs**

**Green building >>
the relationship of house
and its occupants with
the environment**

**We have to
make
sustainable
choices for our
children and
grandchildren**

**We have a responsibility that extends
beyond our immediate family circle!!!**

Sustainability ?

- ⦿ Conscious design and the consideration of the impacts consumption choices make on the environment given finite resources

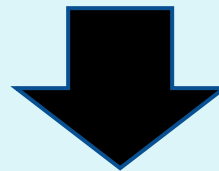


GOAL: SUSTAINABLE DEVELOPMENT

ENVIRONMENTAL PROBLEMS AND SOLUTIONS

- Common to all environmental problems is the widespread increase in pollution

- Pollution**: general term referring to undesirable changes in physical, chemical, or biological characteristics of air, land, or water



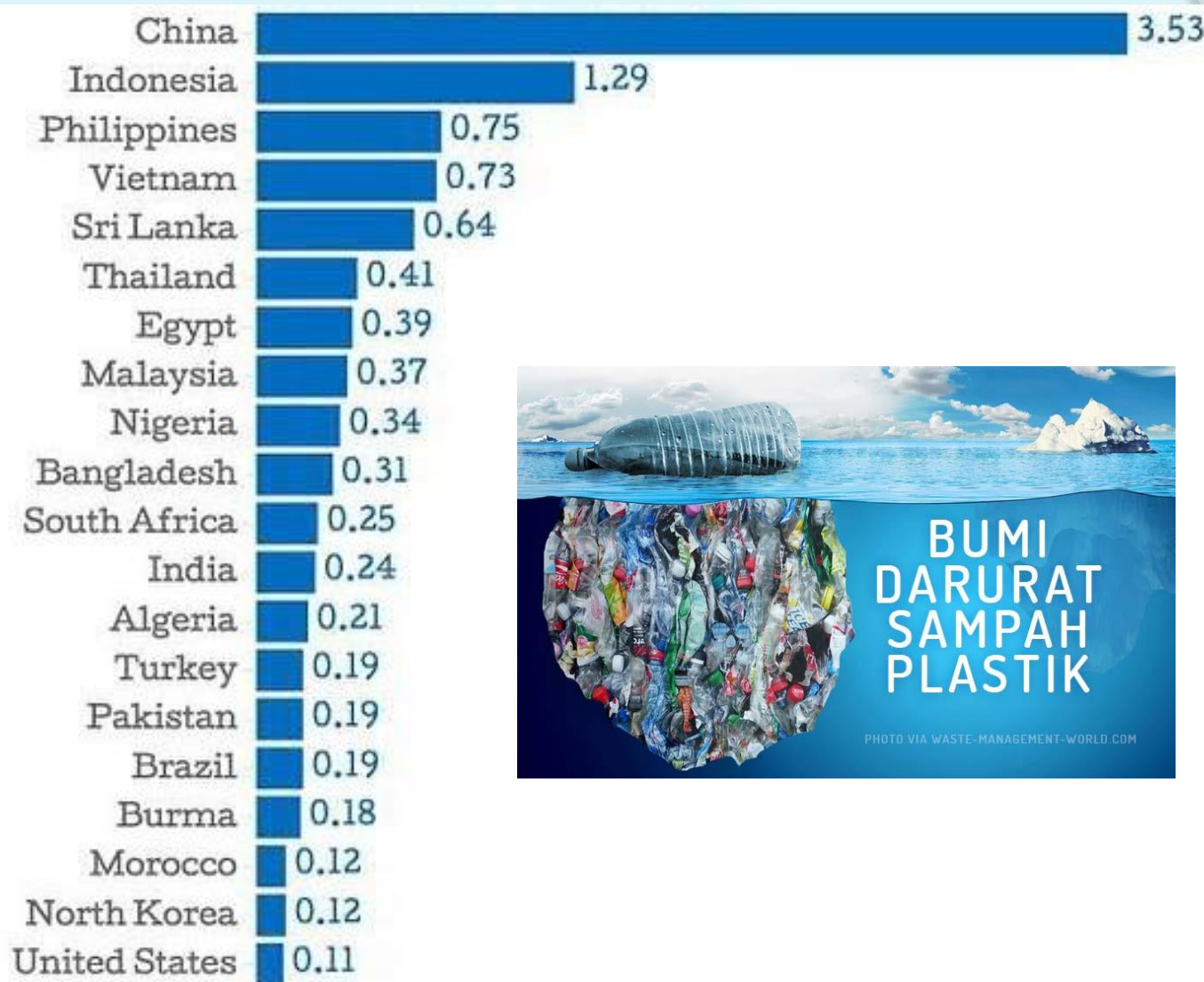
harm survival of living organisms

Water

- Two main problems: **shortages & pollution**



Jumlah Polusi Laut atas Sampah Plastik (juta ton/tahun)



Contamination of drinking water is not the only water-related issue

There are many others, including the following:

- ④ **Drinking water** > supply & conservation
- ④ **Groundwater** > availability & depletion
- ④ **Seawater** > quality & quantity
- ④ **Water for agricultural use** > conservation & supply
- ④ **Water for industrial use** > supply & pollutants
- ④ **Water for household use** > supply & quality

Practical ways to reduce household water use

- ⦿ Don't leave the water running while doing dishes brushing teeth, or shaving
- ⦿ Run full loads in the washing machine and dishwasher
- ⦿ Match the water level and the temperature settings on clothes washers to the size and type of load
- ⦿ Fix leaky faucets and toilets
- ⦿ Use only the necessary amount of water for cooking and rinsing food

Energy

- ⦿ The main problems: **energy production, energy wastage and pollution from the use of fossil fuels**
- ⦿ **Fossil fuel** = the remains of dead vegetation, such as coal, oil, and natural gas, which can be burned to release energy

Energy efficient
choices can save
families about a third
on their energy bill
without sacrificing
comfort

Practical ways to reduce household energy use

- ⦿ Clean or filters on furnaces regularly
- ⦿ Turn the thermostat down on water heaters
- ⦿ Keep the temperature setting in the refrigerator between 38F and 42F
- ⦿ Use small appliance when possible
- ⦿ Clean the dryer's lint screen after each use

Noisy

Less easy to delineate because people are not billed for the use of noise, & each person is a producer as well as a consumer of noise

Simple any unwanted sound



Practical ways to reduce noise

- Find housing away from noisy traffic, airports, school, and factories
- Plant barrier trees and hedges to reduce noise
- Place bedrooms in quieter parts of the house
- Keep the volume on radios and televisions low
- Draw heavy drapes & close blinds to shut out neighborhood noise

Waste & Recycling

- ④ The most effective way to reverse this trend is to prevent waste in the first place >> source reduction
- ④ Source reduction refers to any change in the design, manufacture, purchase, or use of materials or products
- ④ Integrated waste management: burying waste, burning, recycling, or not producing

Practical ways to reduce waste

- Reducing: avoiding buying products with excessive packaging
- Reusing: use both sides of paper
- Recycling: a series of activities to create new product from second materials



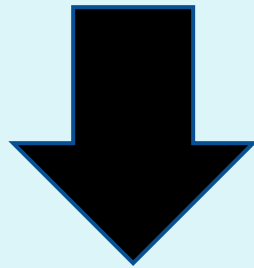
CARA MENGURANGI JUMLAH SAMPAH



Air Quality

- ◉ Given a high priority in the list of environmental concerns
- ◉ Threatened by too much ozone, airborne particles, sulfur dioxide, lead, nitrogen oxides, & carbon monoxide
- ◉ More than half of the nation's air pollution comes from mobile sources
- ◉ Stationary sources (factories) also pollute the air

The impact on the land, air,
and sea from consumption of
goods and resource



the ecological footprint

More specifically...

CARBON FOOTPRINT

measuring and reducing the
environmental impact of carbon
emission resulting from activities
(ex. fuel to transport goods)

The top five countries on emissions (International Energy Agency)

- Qatar >> 48.32
- Australia >> 19.2
- U.S. >> 19.0
- Canada >> 16.52
- Germany >> 10.0

Practical ways to reduce air pollution

- ⦿ Use roll on or solid deodorants
- ⦿ Keep the car engine tuned
- ⦿ Don't smoke
- ⦿ Air out houses & workplaces
- ⦿ Clean heater & air conditioner filters regularly
- ⦿ Put green plants in homes

Critical thinking...

What is your campus
doing about recycling,
green transportation,
and other
adjustments



References

- Goldsmith, EB. 2010. Resource Management for Individual and Families, Fourth Edition. New Jersey: Prentice Hall



Thank You

