



**LAND MANAGEMENT, ENVIRONMENT & SOLID-WASTE:
INSIDE EDUCATION AND BUSINESS IN CENTRAL ASIA
ERASMUS-EDU-2023-CBHE Project Number: 101129032**

MICRO-CREDENTIAL

LAND MANAGEMENT IN CENTRAL ASIA

6.- Rational Land Use and Efficiency

Activity

Analyze land use efficiency indicators



Co-funded by
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Student Worksheet

Lesson Topic: Activity – Analyze Land Use Efficiency Indicators

Name: _____

Date: _____

Instructions

Read each question carefully. Analyze the given data and answer all questions. Use appropriate economic and land management terminology. Show calculations where necessary.

Part 1. Multiple Choice Questions

1. Land use efficiency refers to:

- A. Random use of land resources
- B. The optimal use of land to maximize productivity and sustainability
- C. Ignoring environmental factors
- D. Using land for one purpose only

Your answer: _____

2. Which indicator is commonly used to measure land productivity?

- A. Crop yield per hectare
- B. Number of buildings
- C. Population density only
- D. Road length

Your answer: _____

3. High land use efficiency means:

- A. Low productivity
- B. Optimal output with minimal resource waste
- C. Increased land degradation
- D. Poor planning

Your answer: _____

4. Which factor affects land use efficiency the most?

- A. Soil quality
- B. Climate conditions
- C. Management practices
- D. All of the above

Your answer: _____

5. Land use efficiency indicators are important because they:

- A. Help evaluate land management performance
- B. Reduce economic growth
- C. Ignore sustainability
- D. Eliminate planning

Your answer: _____

6. Economic efficiency of land use focuses on:

- A. Maximizing output and value
- B. Minimizing productivity
- C. Ignoring markets
- D. Reducing investment

Your answer: _____

7. Environmental efficiency refers to:

- A. Maximum pollution
- B. Sustainable use with minimal environmental damage
- C. Ignoring ecosystems
- D. Increasing deforestation

Your answer: _____

8. Which indicator reflects population pressure on land?

- A. Land value

B. Population density

C. Soil fertility

D. Crop yield

Your answer: _____

9. Inefficient land use may result in:

A. Resource waste

B. Land degradation

C. Reduced productivity

D. All of the above

Your answer: _____

10. Sustainable land use efficiency requires balancing:

A. Economic, social, and environmental factors

B. Only economic factors

C. Only environmental factors

D. Only social factors

Your answer: _____

Part 2. True / False

11. Land productivity is a key indicator of land use efficiency.

Answer: _____

12. High efficiency always ignores environmental impacts.

Answer: _____

13. Population density can influence land use efficiency.

Answer: _____

14. Sustainable land management considers efficiency indicators.

Answer: _____

15. Poor land use efficiency can lead to land degradation.

Answer: _____

Part 3. Calculation and Analysis

Task: Analyze the Data

Below is data from three land parcels:

Indicator	Parcel A	Parcel B	Parcel C
Area (hectares)	10	10	10
Crop Yield (tons)	30	20	40
Population (people)	50	100	60
Green Cover (%)	70%	40%	60%

Questions

16. Calculate yield per hectare for each parcel.

17. Which parcel has the highest land productivity? Explain.

18. Which parcel shows the highest population pressure?

19. Which parcel is most environmentally sustainable based on green cover?

20. Based on all indicators, which parcel has the best overall land use efficiency? Justify your answer.

Part 4. Short Answer Questions

21. What are land use efficiency indicators, and why are they important?

22. Explain the relationship between economic efficiency and environmental sustainability in land use.

23. How can land managers improve land use efficiency in low-performing areas?

Part 5. Discussion Questions

24. Discuss how land use efficiency indicators support decision-making in land management.

25. Analyze the impact of poor land use efficiency on economic and environmental systems.



26. Evaluate the importance of integrating data analysis and technology (e.g., GIS) in measuring land use efficiency.

Teacher's Comment
