LESLIE
LAND MANAGEMENT
ENVIRONMENT &
SOLID-WASTE

LAND MANAGEMENT, ENVIRONMENT & SOLID-WASTE: INSIDE EDUCATION AND BUSINESS IN CENTRAL ASIA
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MICRO-CREDENTIAL

LAND MANAGEMENT IN CENTRAL ASIA

3.- Systems and System-Based Approach

Activity

Model a land resource system

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Student Worksheet

Lesson Topic: Model a Land Resource System

Name: _____

Date: _____

_____

Instructions

Read each question carefully and complete all sections. For multiple choice questions, choose one correct answer. For true/false questions, write True or False. For short answer and discussion questions, respond in clear, logically structured sentences using land management and environmental terminology where appropriate.

_____

Part 1. Multiple Choice Questions

1. A land resource system model is used to:

A. Ignore environmental changes

B. Represent the interaction between land resources, human activities, and management practices

C. Replace natural ecosystems

D. Focus only on economic development

Your answer: _____

_____

2. Which component is usually included in a land resource system model?

A. Soil resources

B. Water availability

C. Human land use activities

D. All of the above

Your answer: _____

_____

3. In land resource system modeling, inputs usually refer to:

A. Natural resources such as soil, water, and climate

B. Land conflicts

C. Population migration

D. Political campaigns

Your answer: _____

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4. Land use planning within a land resource system model helps to:

A. Reduce environmental sustainability

B. Improve land allocation and management decisions

C. Eliminate agricultural activities

D. Remove economic development

Your answer: _____

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5. Which technology is commonly used to analyze land resource systems?

A. Geographic Information Systems (GIS)

B. Word processing software

C. Music editing software

D. Spreadsheet calculators only

Your answer: _____

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6. A key objective of modeling land resource systems is to:

A. Predict land degradation and manage resources sustainably

B. Increase land conflicts

C. Ignore environmental impacts

D. Reduce land productivity

Your answer: _____

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7. Land resource models help decision-makers to:

A. Visualize land use patterns and future scenarios

B. Eliminate planning processes

C. Ignore scientific data

D. Remove land records

Your answer: _____

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8. Which factor strongly influences land resource systems?

A. Climate conditions

B. Population growth

C. Economic activities

D. All of the above

Your answer: _____

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9. Sustainable land resource management requires:

A. Balancing environmental protection and economic development

B. Ignoring ecological systems

C. Eliminating agricultural production

D. Focusing only on urban areas

Your answer: _____

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10. A well-designed land resource system model helps to:

A. Improve land policy and planning decisions

B. Increase land degradation

C. Eliminate environmental regulations

D. Prevent technological development

Your answer: _____

Part 2. True / False

11. A land resource system includes natural resources such as soil, water, and vegetation.

Answer: _____

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12. Land resource system models help analyze interactions between humans and the environment.

Answer: _____

13. Land resource modeling has no role in sustainable development planning.

Answer: _____

14. GIS technology is commonly used to analyze land resource systems.

Answer: _____

15. Land resource systems are influenced by both natural and human factors.

Answer: _____

Part 3. Short Answer Questions

16. What is a land resource system model, and why is it important in land management?

17. Identify and briefly explain three components of a land resource system.

18. How does GIS technology support modeling of land resource systems?

19. Explain how human activities influence land resource systems.

20. Why is modeling land resource systems important for sustainable land management?

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_____

Part 4. Discussion Questions

21. Discuss how land resource system models help governments make better land use planning decisions.

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22. Analyze the relationship between climate change and land resource systems.

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23. Evaluate how modern geospatial technologies improve land resource system analysis and management.

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Teacher's Comment

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