温州肯恩大学
WENZHOU-KEAN UNIVERSITY

Assessment of Sustainability Knowledge

2024-2025

Note: Results from 1,037 Wenzhou-Kean University Students

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Assessment Tool:

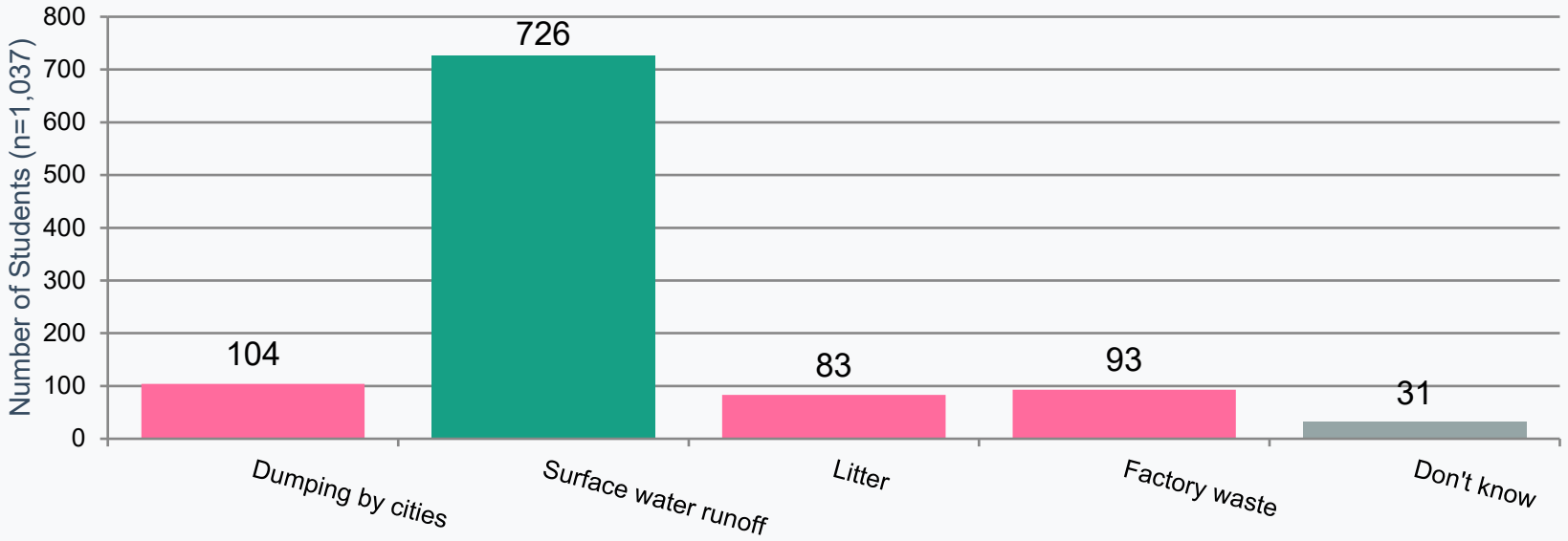
Wenzhou-Kean University (WKU) adopted The Ohio State University's Assessment of Sustainability Knowledge (ASK) tool as its primary instrument for assessing student sustainability literacy. The ASK tool's robust design effectively measures comprehension across the ecological, economic, and social pillars of sustainability. Unlike surveys that measure beliefs and values, ASK aims to solely measure factual knowledge.

Material Resource/Reference: Zwickle, A., & Jones, K. (2018). Sustainability Knowledge and Attitudes—Assessing Latent Constructs. In *Handbook of Sustainability and Social Science Research* (pp. 435-451). Springer, Cham.

More information on the OSU ASK tool may be found here:
http://ess.osu.edu/research/assessment-sustainability-knowledge-ask

Question 1

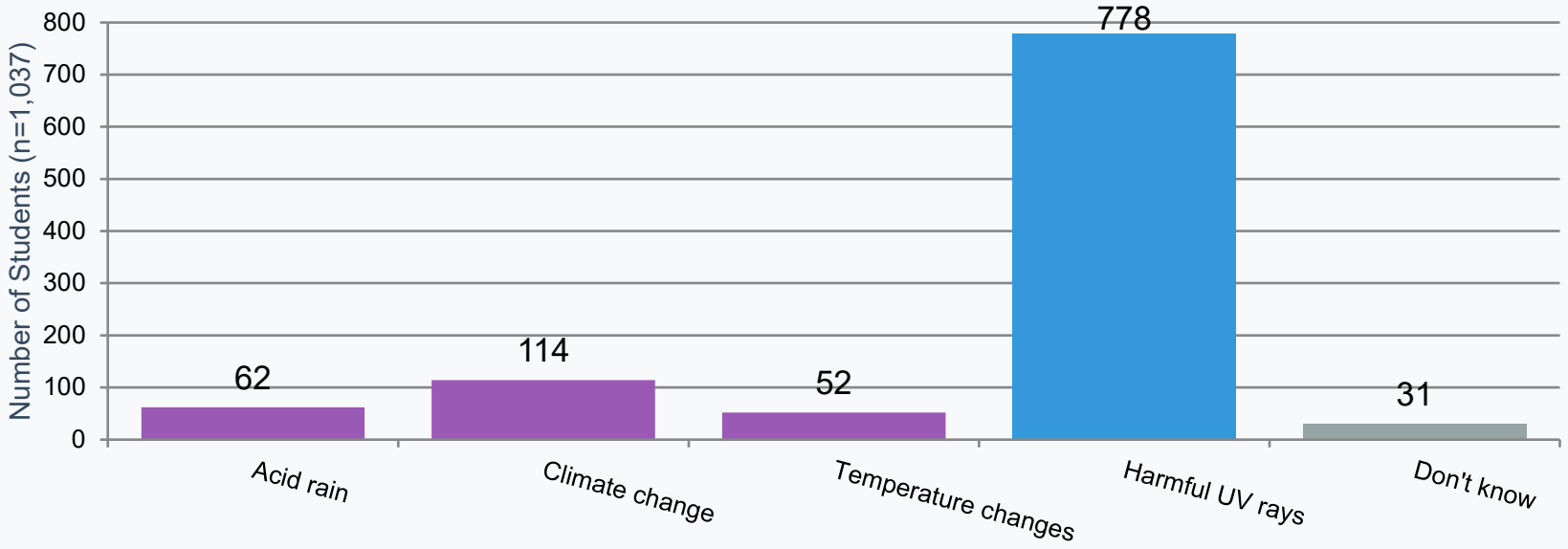
Q1: Most common cause of pollution of streams and rivers



✓ **Correct Answer Rate: 70.0% (726 out of 1037 students answered correctly)**

Question 2

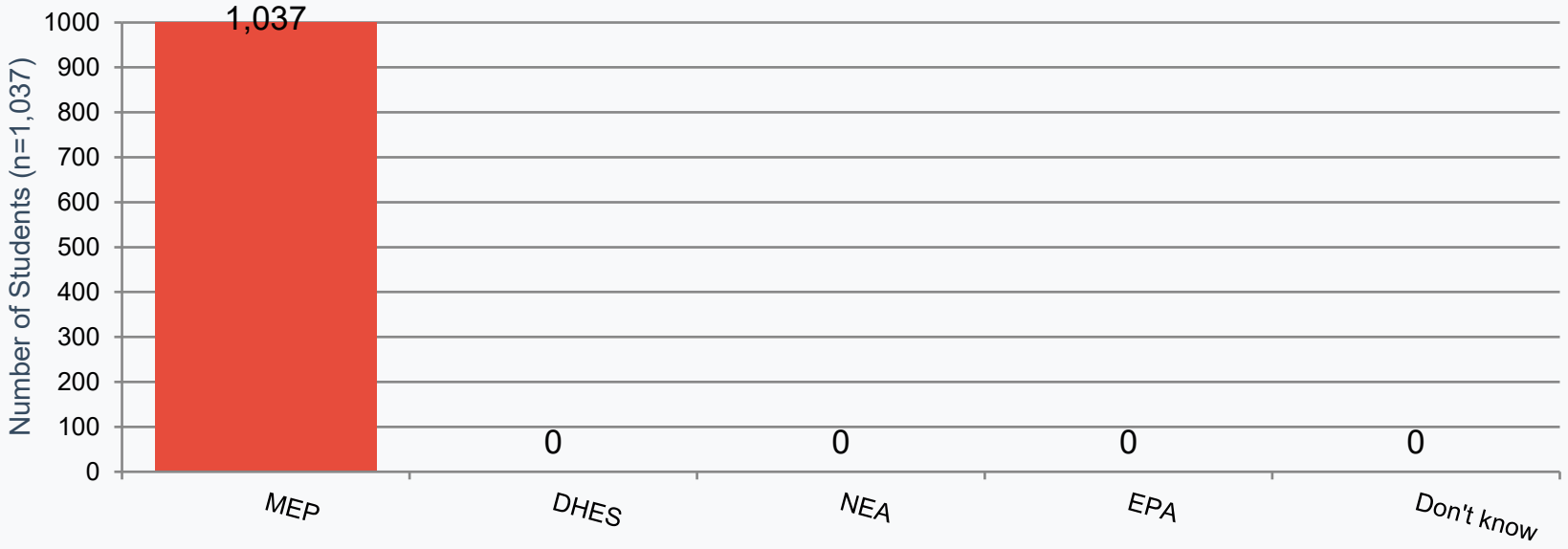
Q2: What does ozone protect us from?



✓ **Correct Answer Rate: 75.0% (778 out of 1037 students answered correctly)**

Question 3

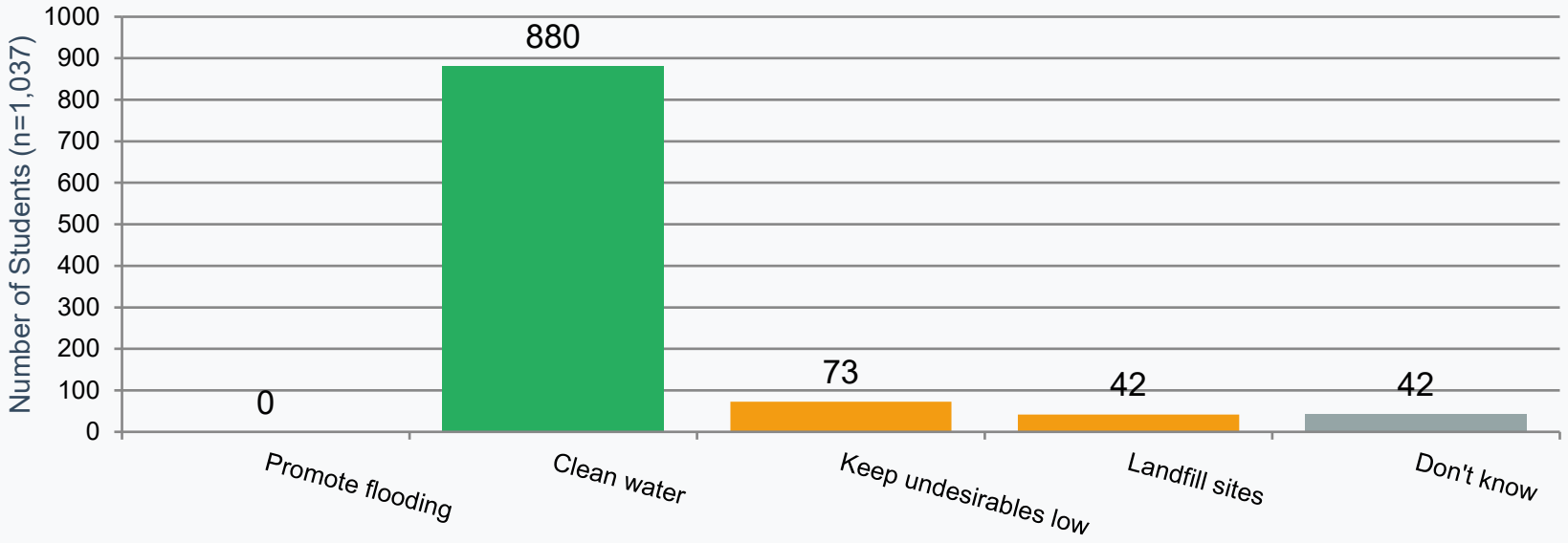
Q3: Primary federal environmental agency in China



✓ **Correct Answer Rate: 100.0% (1037 out of 1037 students answered correctly)**

Question 4

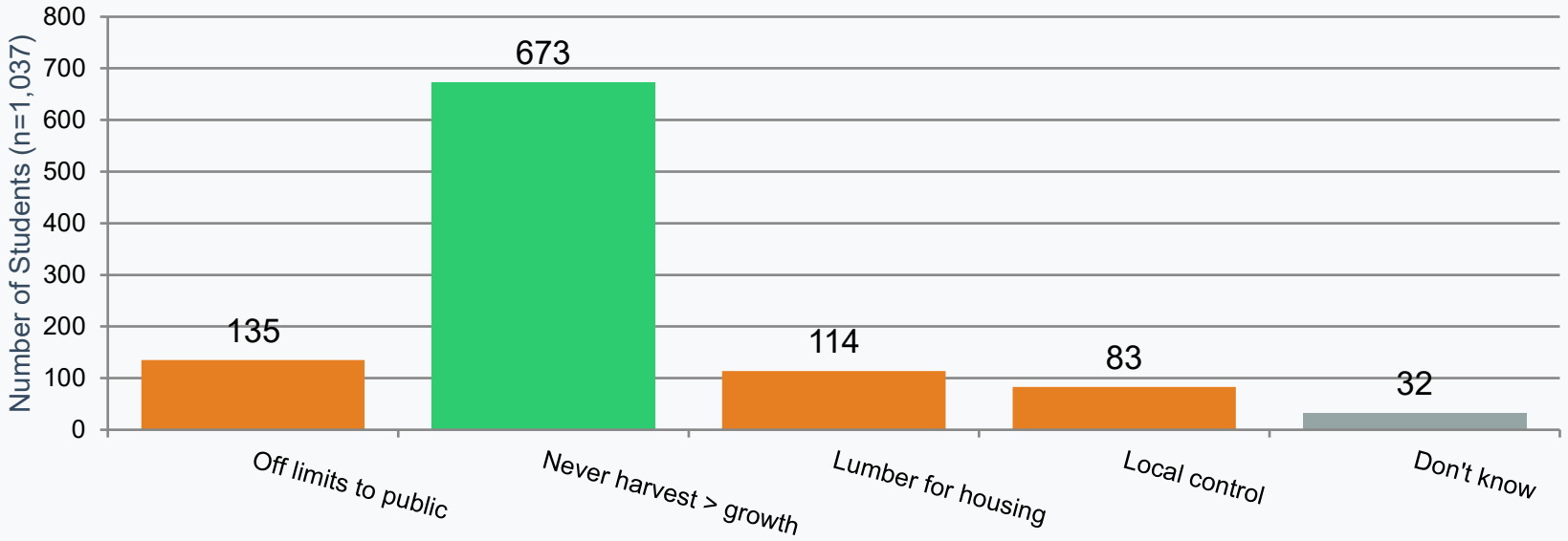
Q4: Primary benefit of wetlands



✓ **Correct Answer Rate: 84.86% (880 out of 1037 students answered correctly)**

Question 5

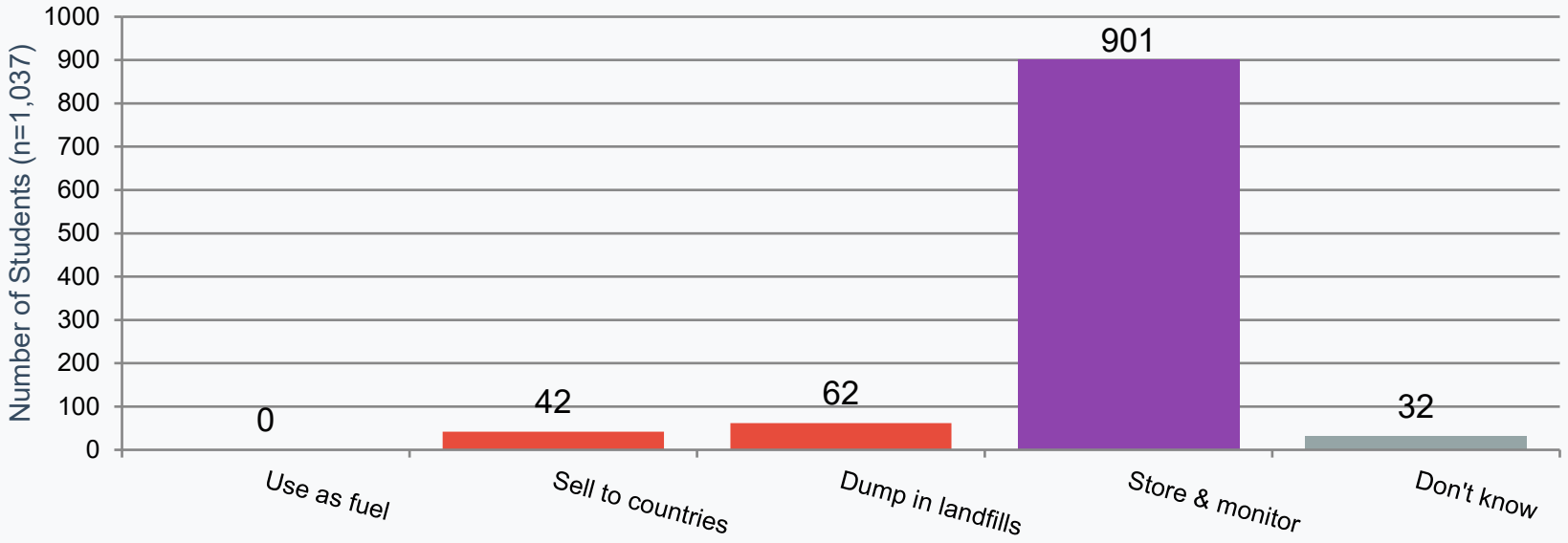
Q5: Example of sustainable forest management



✓ **Correct Answer Rate: 64.9% (673 out of 1037 students answered correctly)**

Question 6

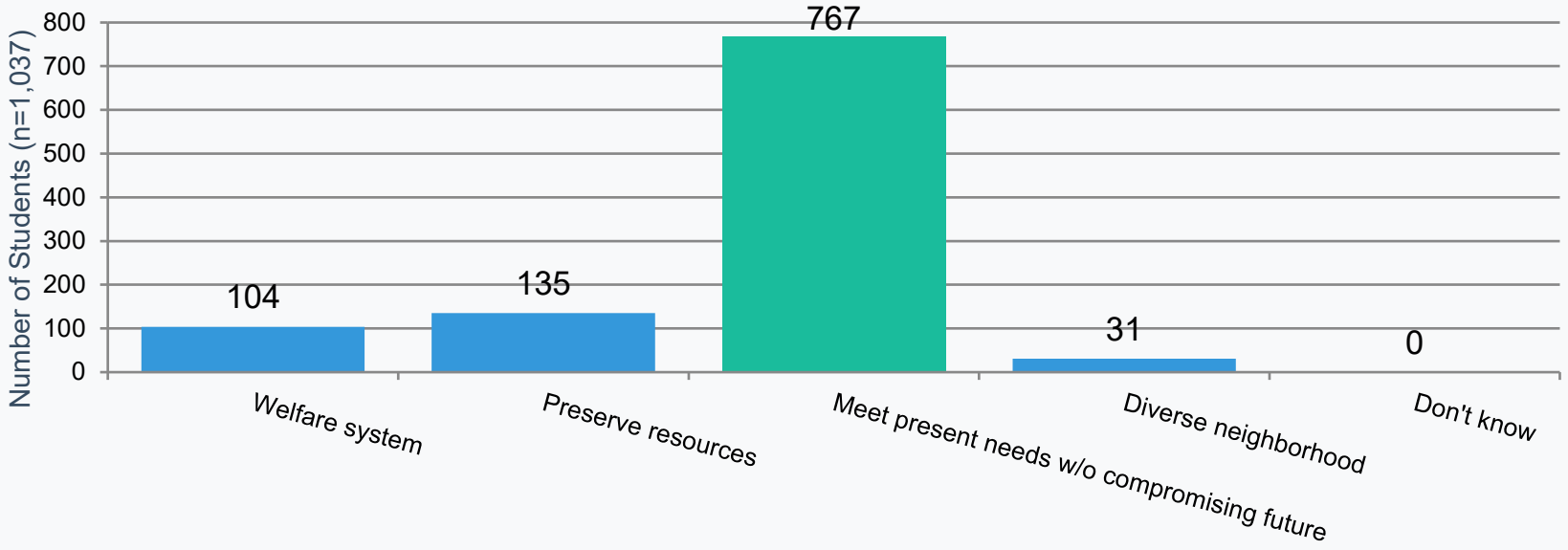
Q6: What do we do with nuclear waste in China?



✓ **Correct Answer Rate: 86.88% (901 out of 1037 students answered correctly)**

Question 7

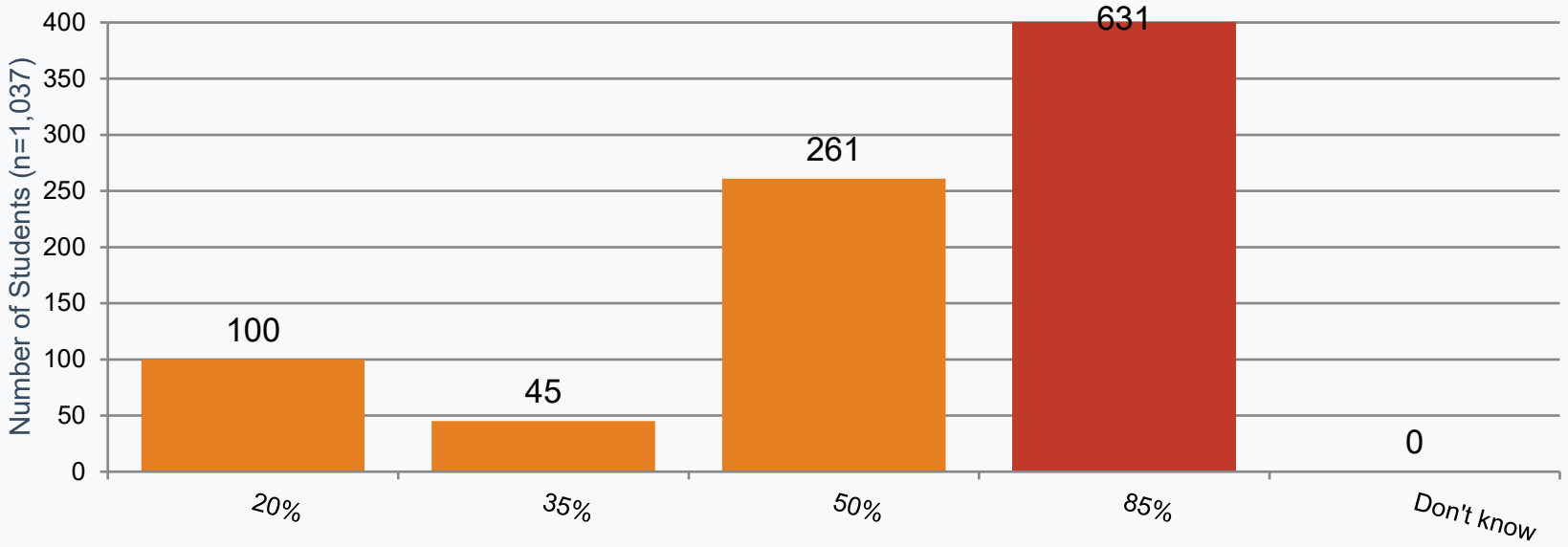
Q7: Most common definition of sustainable development



✓ **Correct Answer Rate: 73.96% (767 out of 1037 students answered correctly)**

Question 8

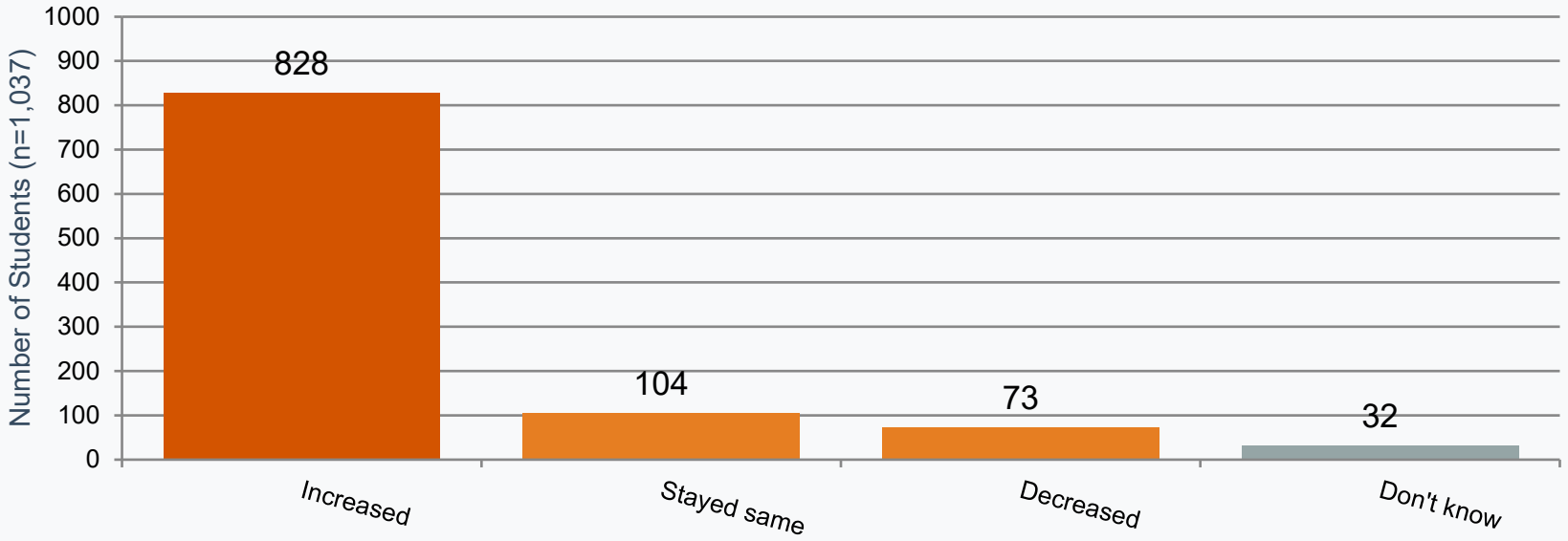
Q8: Wealthiest 20% own what % of nation's wealth?



✓ **Correct Answer Rate: 60.84% (631 out of 1037 students answered correctly)**

Question 9

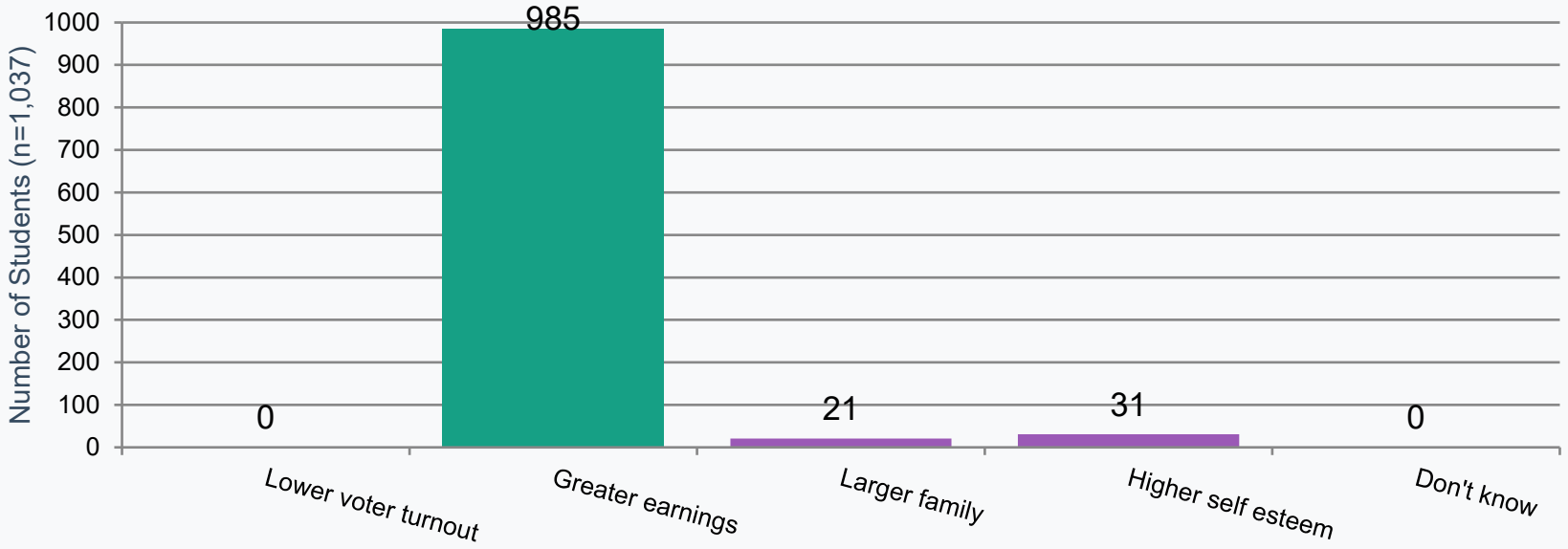
Q9: Difference between richest and poorest Chinese



✓ **Correct Answer Rate: 79.8% (828 out of 1037 students answered correctly)**

Question 10

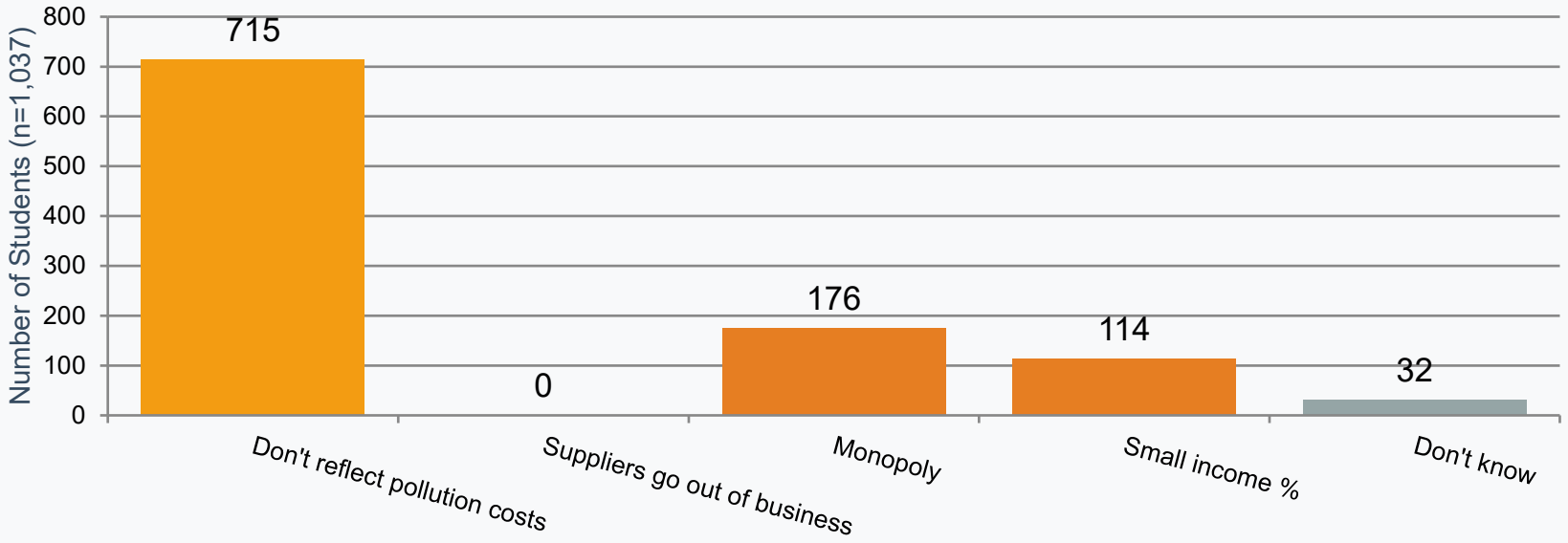
Q10: Higher education generally leads to...



✓ **Correct Answer Rate: 94.98% (985 out of 1037 students answered correctly)**

Question 11

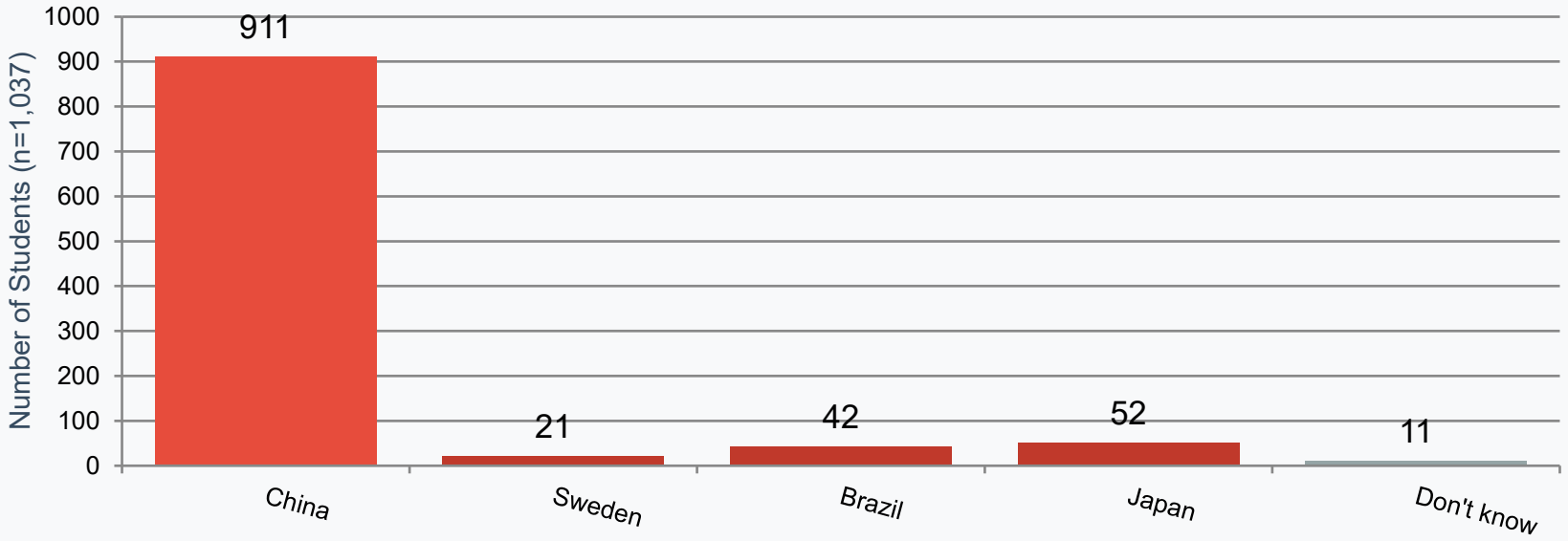
Q11: Why are electricity prices too low?



✓ **Correct Answer Rate: 68.94% (715 out of 1037 students answered correctly)**

Question 12

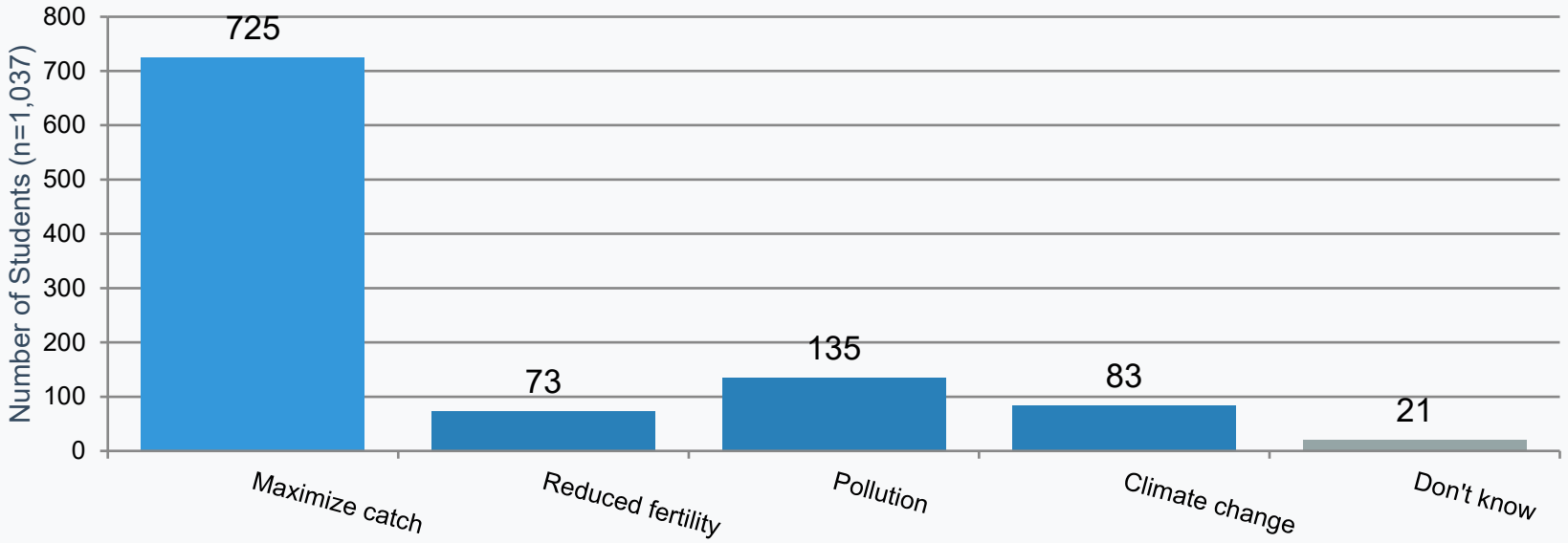
Q12: Biggest CO2 emitter (passed U.S.) due to industrialization.



✓ **Correct Answer Rate: 87.8% (911 out of 1037 students answered correctly)**

Question 13

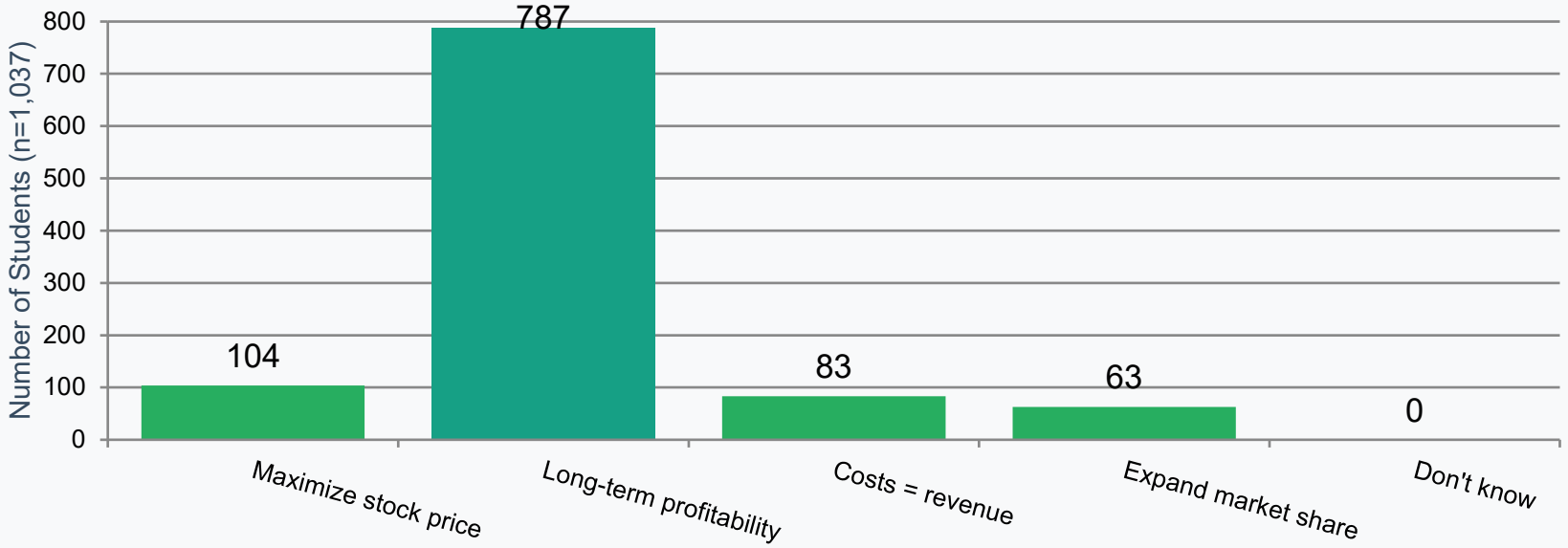
Q13: Leading cause of fish stock depletion



✓ **Correct Answer Rate: 69.9% (725 out of 1037 students answered correctly)**

Question 14

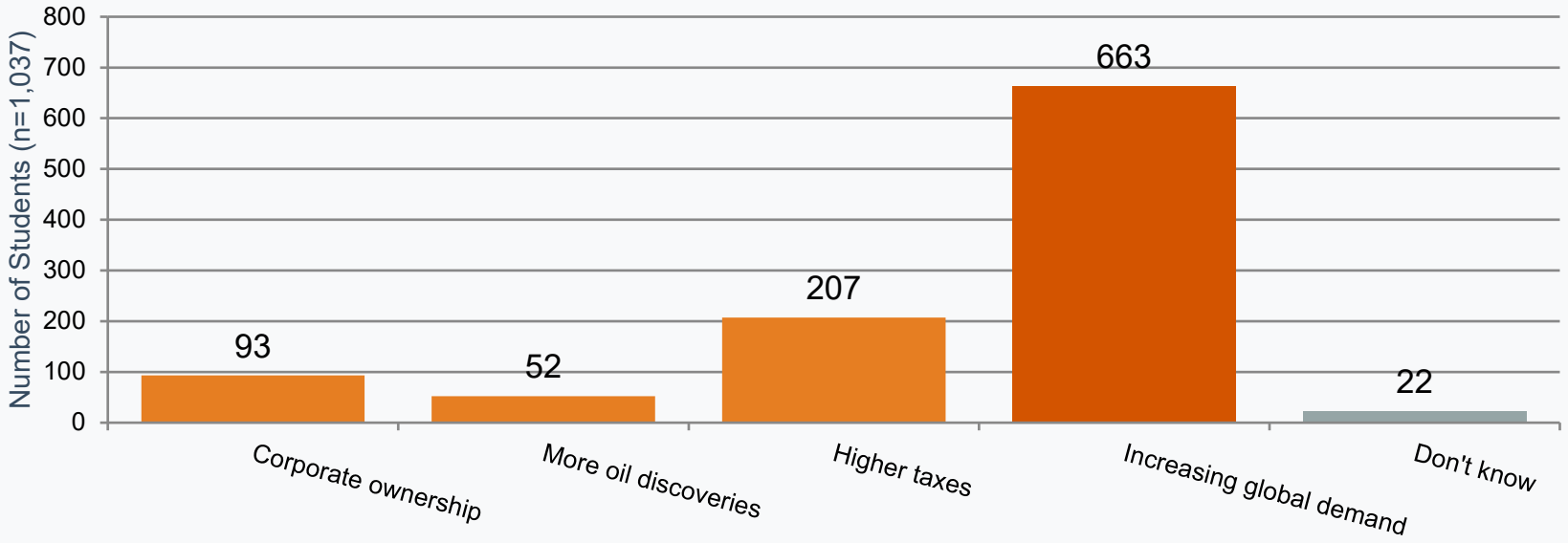
Q14: Most common definition of economic sustainability



✓ **Correct Answer Rate: 75.9% (787 out of 1037 students answered correctly)**

Question 15

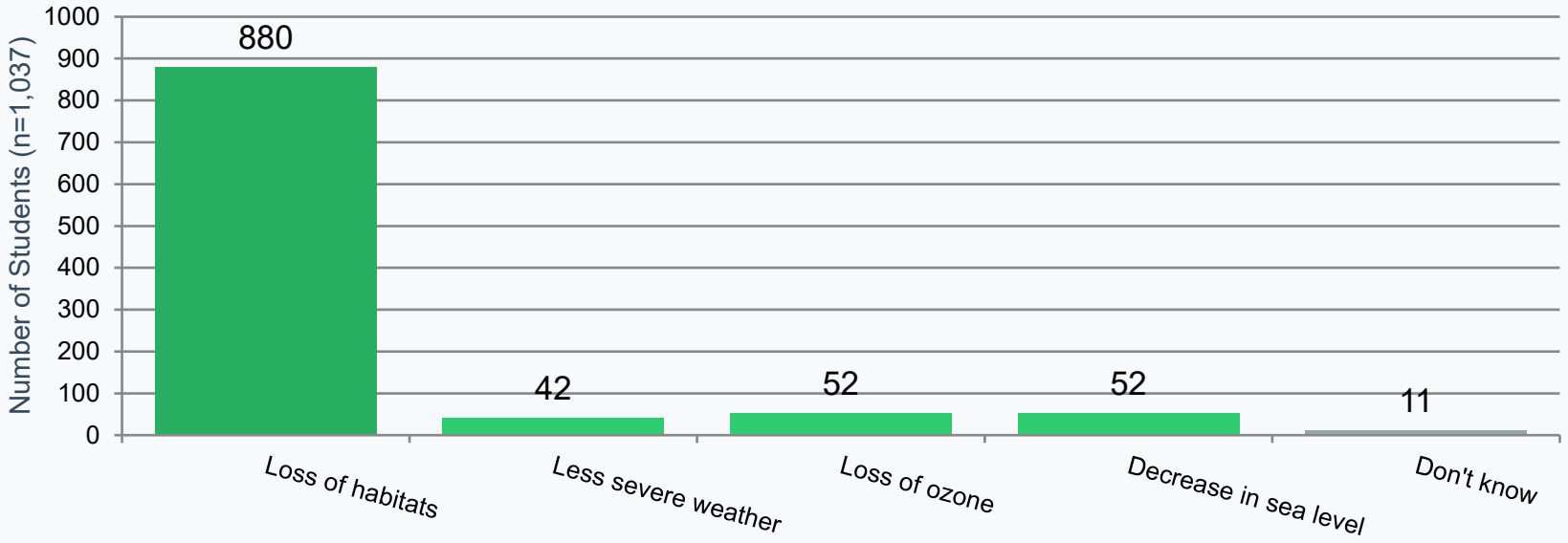
Q15: Primary reason for rising gasoline prices



✓ **Correct Answer Rate: 63.9% (663 out of 1037 students answered correctly)**

Question 16

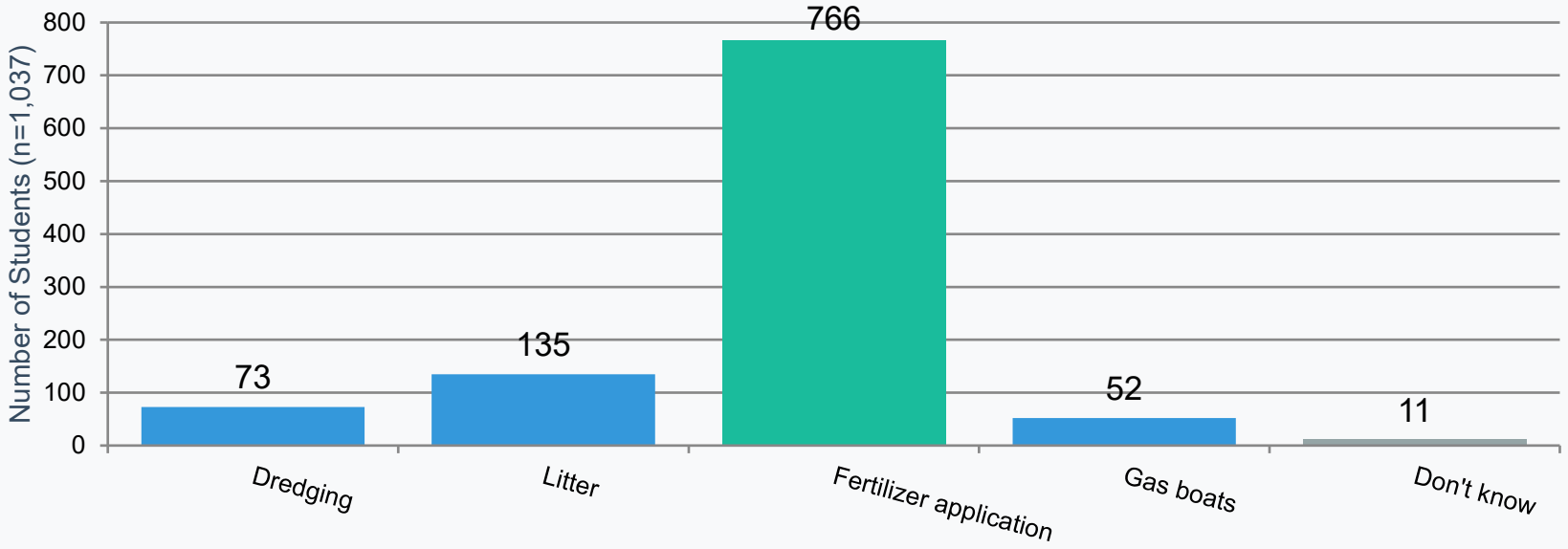
Q16: Potential effects of climate change



✓ **Correct Answer Rate: 84.9% (880 out of 1037 students answered correctly)**

Question 17

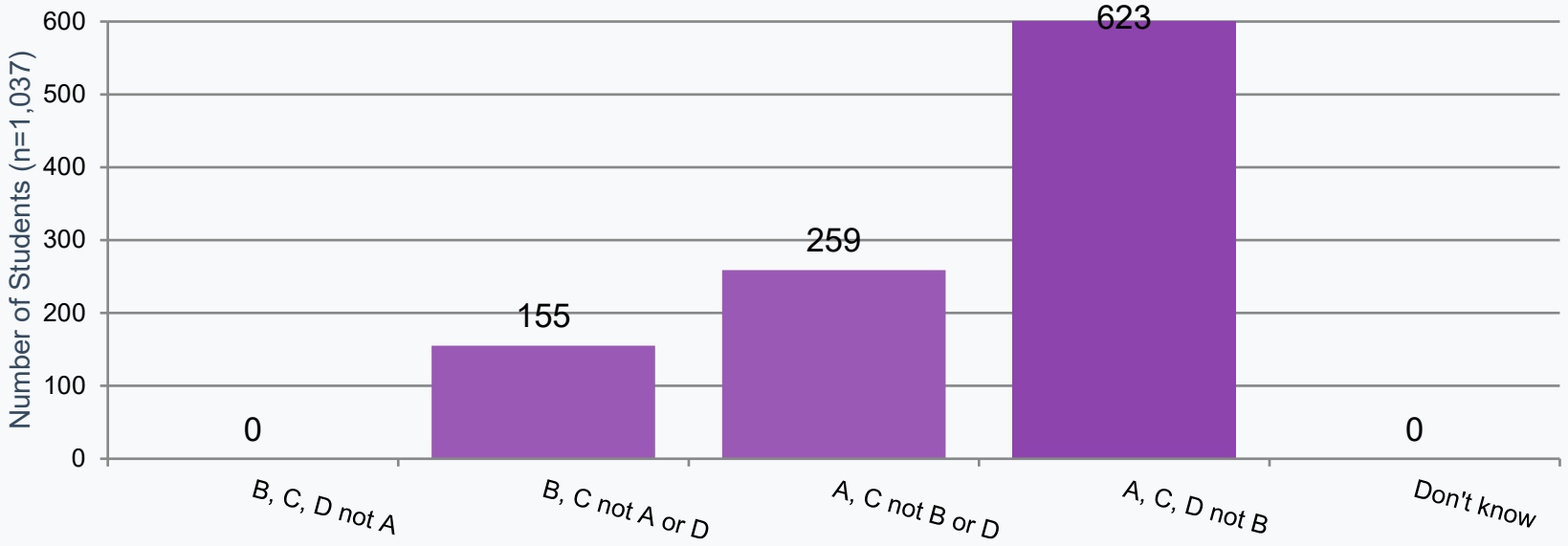
Q17: Greatest pressure on Bay ecosystem



✓ **Correct Answer Rate: 73.9% (766 out of 1037 students answered correctly)**

Question 18

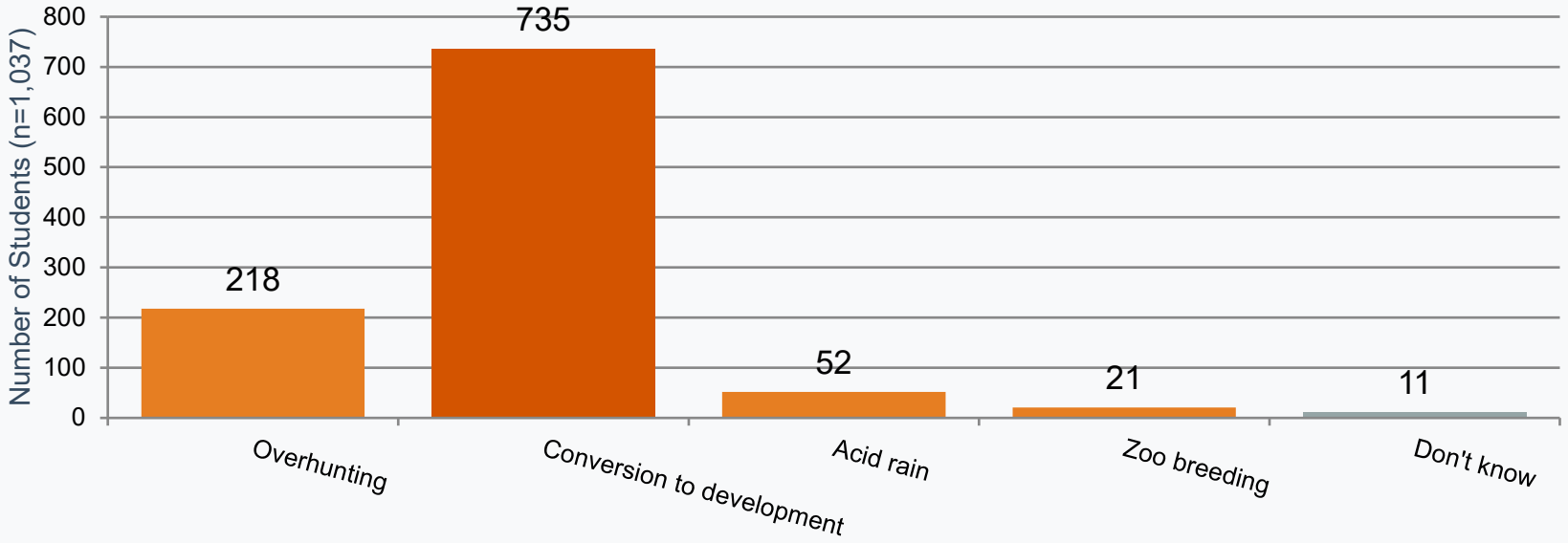
Q18: Fisherman scenario results



✓ **Correct Answer Rate: 60.07% (623 out of 1037 students answered correctly)**

Question 19

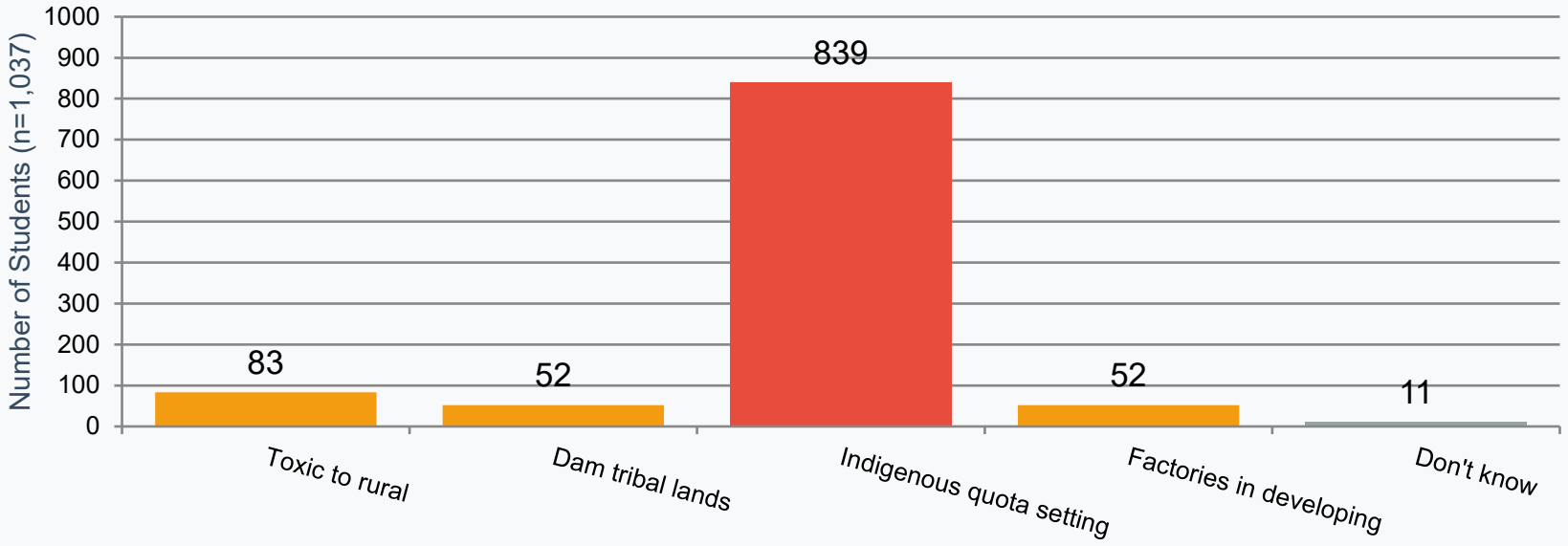
Q19: Most significant driver of species loss



✓ **Correct Answer Rate: 70.9% (735 out of 1037 students answered correctly)**

Question 20

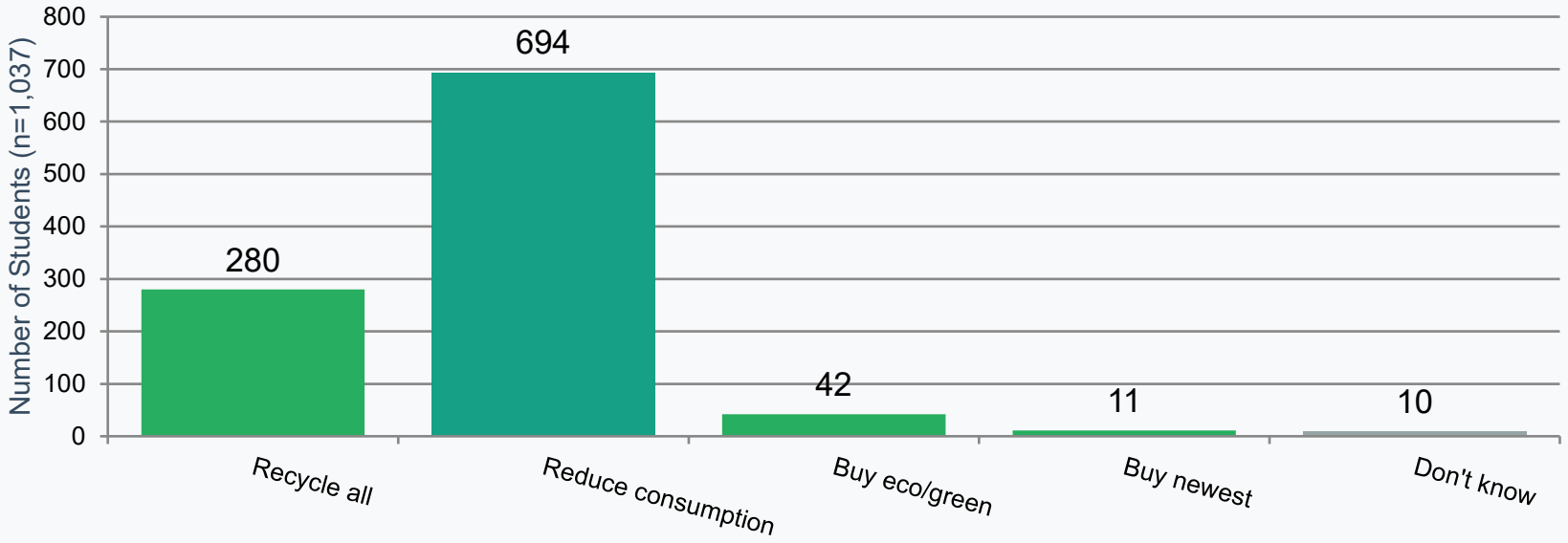
Q20: Best example of environmental justice



✓ **Correct Answer Rate: 80.9% (839 out of 1037 students answered correctly)**

Question 21

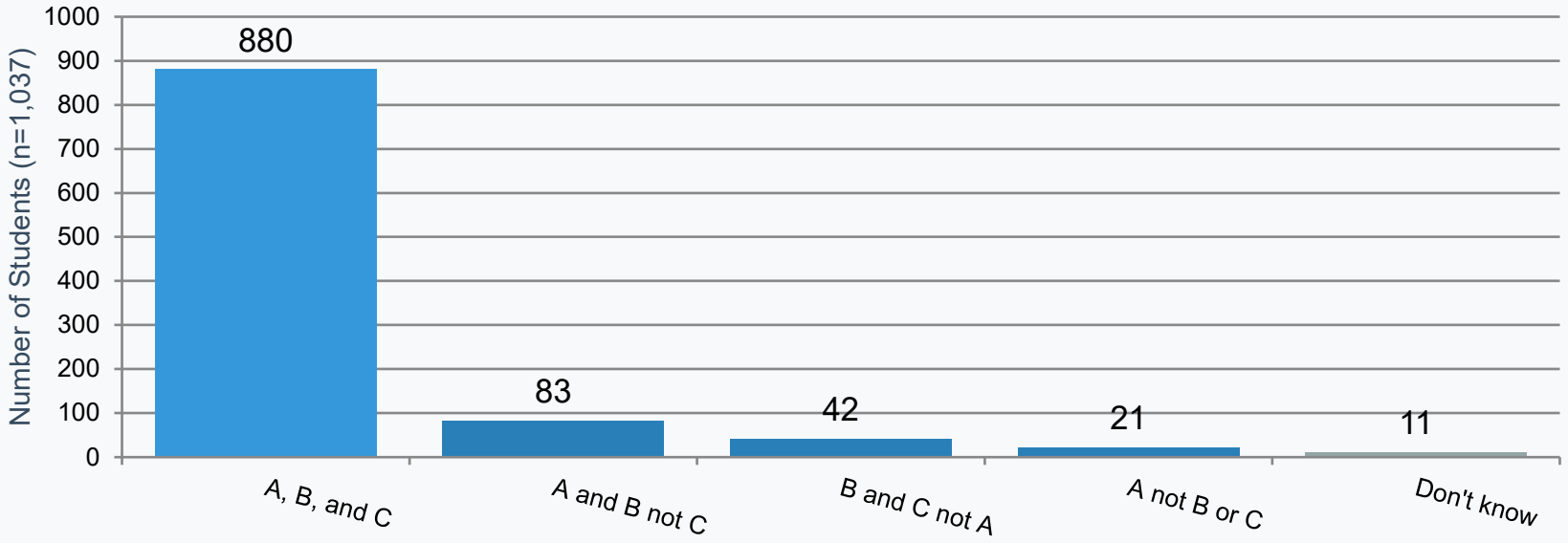
Q21: Most environmentally sustainable living



✓ **Correct Answer Rate: 66.9% (694 out of 1037 students answered correctly)**

Question 22

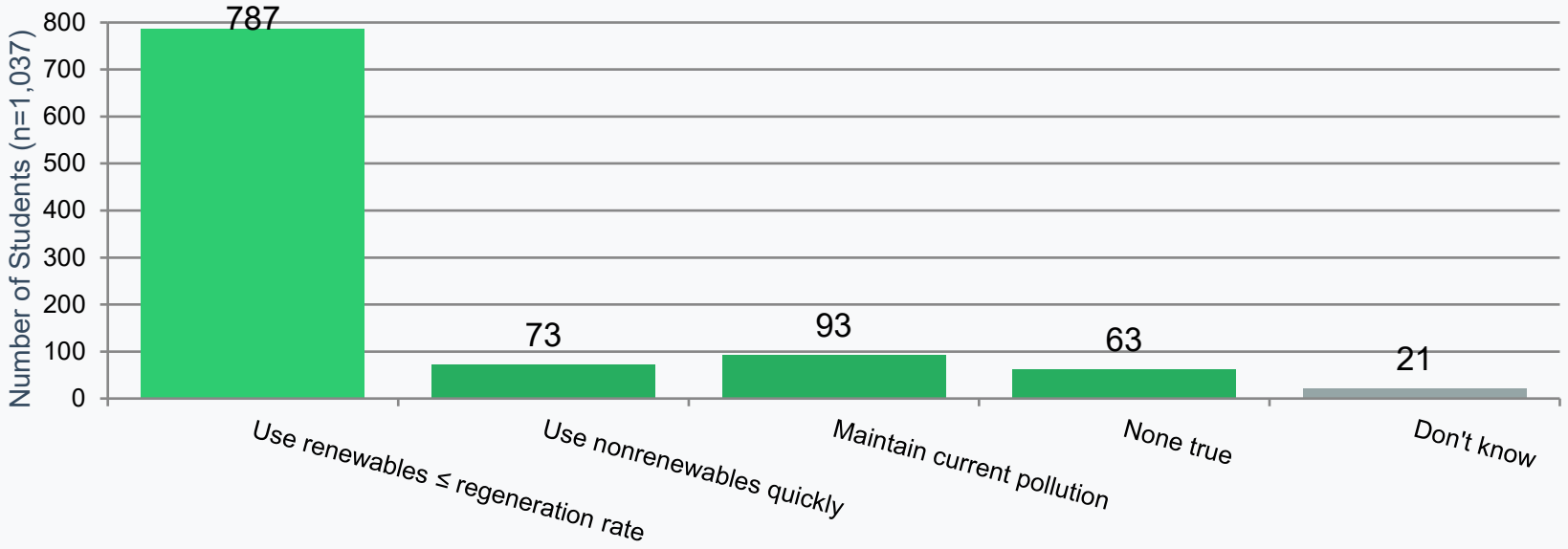
Q22: Factors influencing population impact on Earth



✓ **Correct Answer Rate: 84.9% (880 out of 1037 students answered correctly)**

Question 23

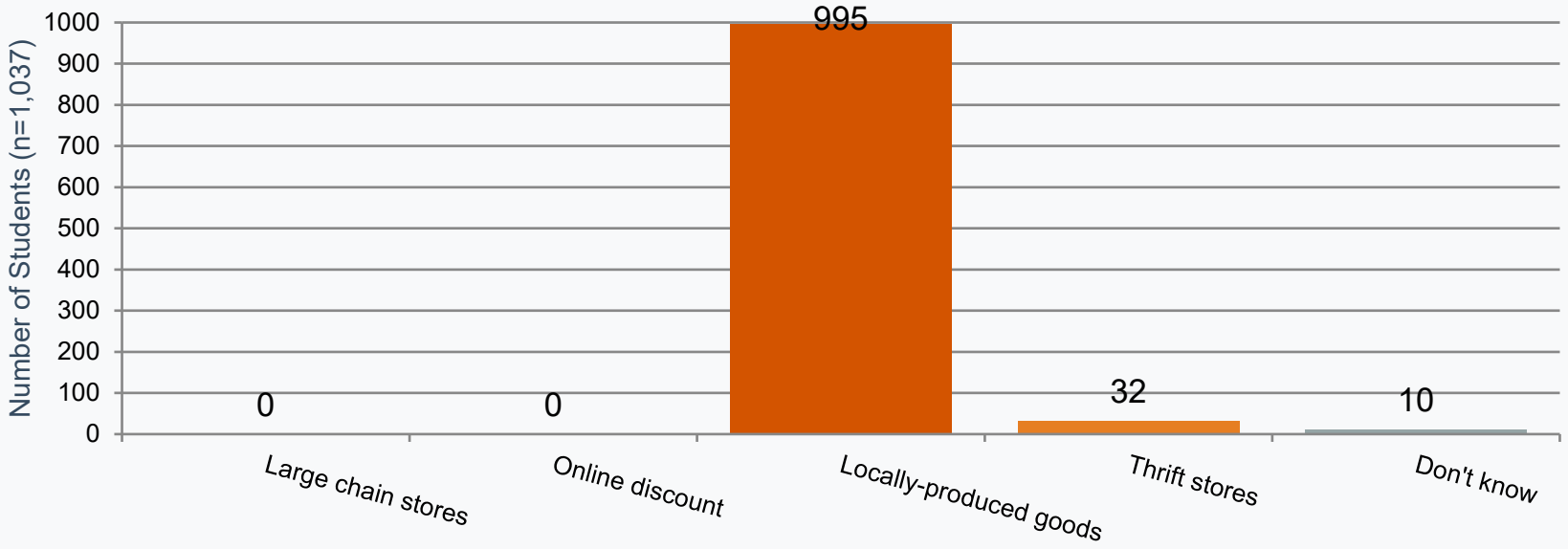
Q23: Principle to not disadvantage next generation



✓ **Correct Answer Rate: 75.9% (787 out of 1037 students answered correctly)**

Question 24

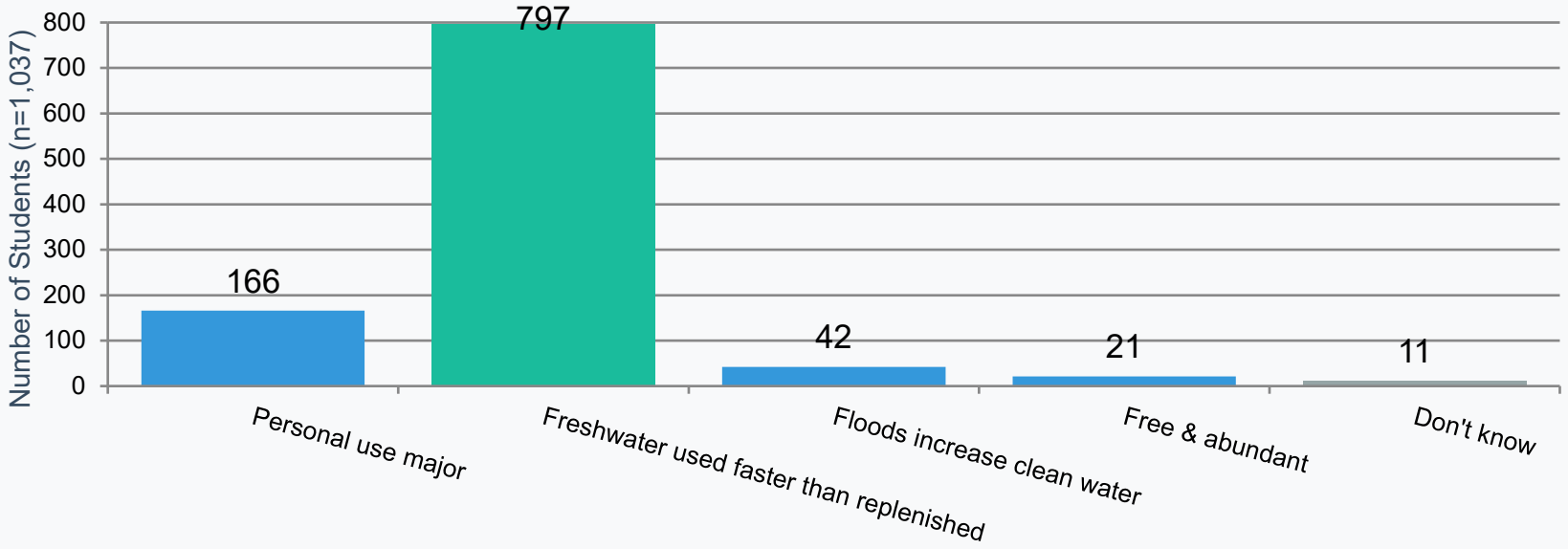
Q24: Best way to support local economy



✓ **Correct Answer Rate: 95.94% (995 out of 1037 students answered correctly)**

Question 25

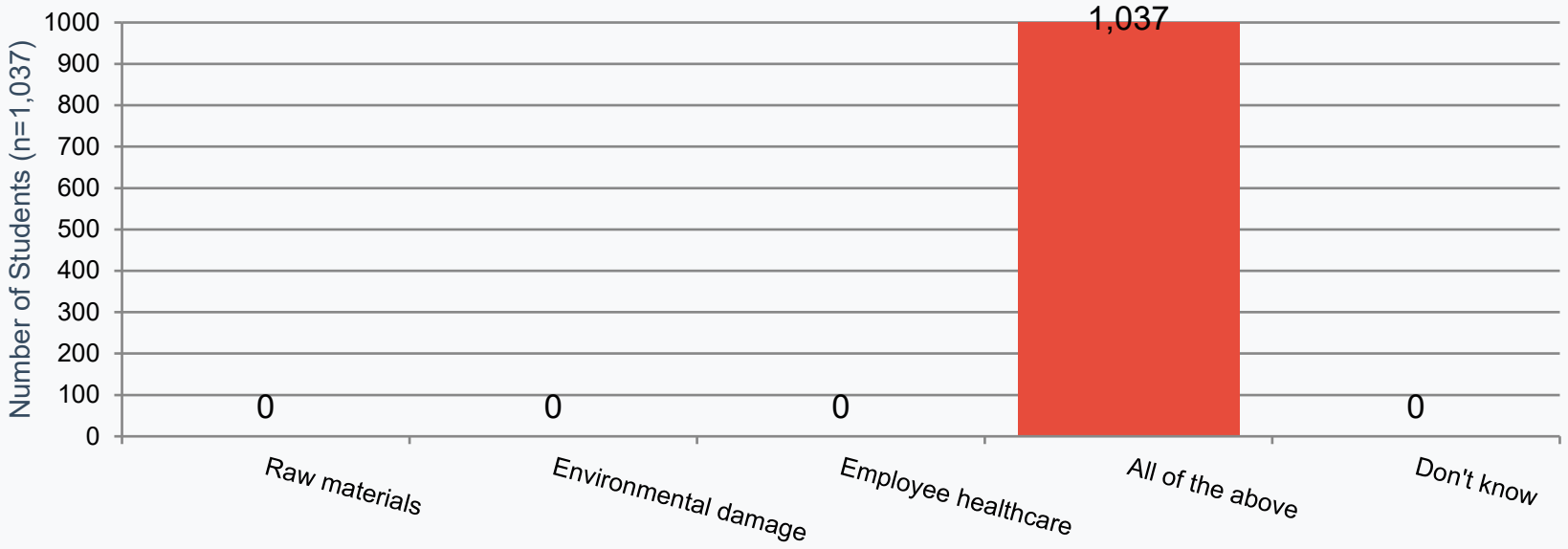
Q25: True statement about water



✓ **Correct Answer Rate: 76.9% (797 out of 1037 students answered correctly)**

Question 26

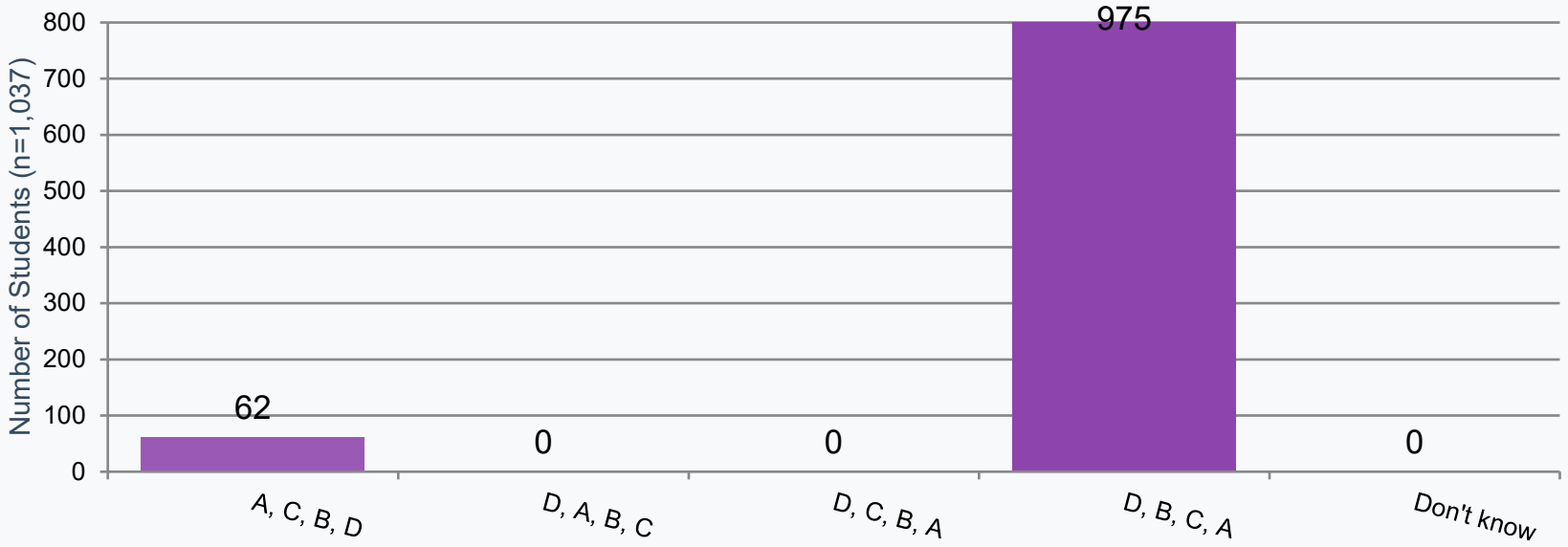
Q26: True costs of a product include



✓ **Correct Answer Rate: 100% (1037 out of 1037 students answered correctly)**

Question 27

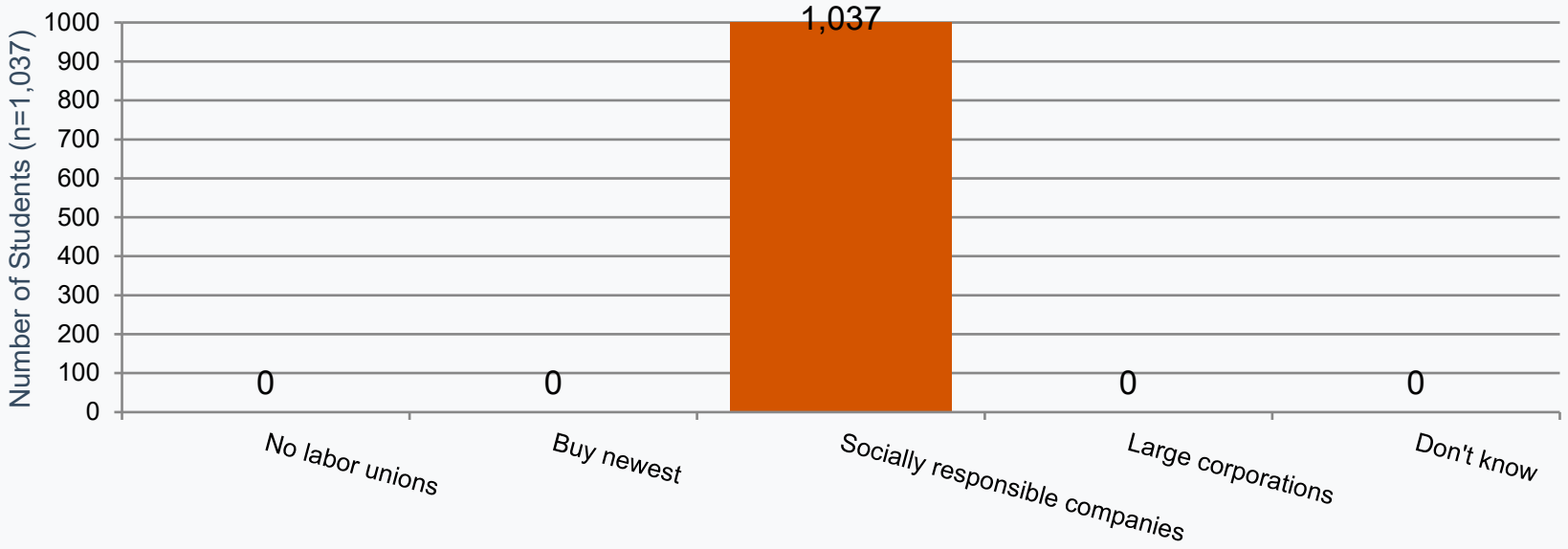
Q27: Environmental impact order (largest to smallest)



✓ **Correct Answer Rate: 94.02% (975 out of 1037 students answered correctly)**

Question 28

Q28: Improve conditions for workers worldwide



✓ **Correct Answer Rate: 100% (1037 out of 1037 students answered correctly)**

Performance Summary

Average Correct	73.39%
Highest Score	100.0%
Lowest Score	60.07%

Key Findings

What Students Know Well:

- **Basic Environmental Science** - Strong grasp of ozone layer, wetlands function, climate change impacts
- **Social Responsibility** - Excellent understanding of worker welfare and environmental justice
- **Practical Sustainability** - Good knowledge of sustainable living practices and local economy support
- **Global Environmental Issues** - Awareness of international environmental challenges

Knowledge Gaps:

- **Economic Dimensions** - Wealth inequality metrics and externalized costs need reinforcement
- **Complex Systems Thinking** - Multi-stakeholder scenarios and feedback loops require more attention
- **Pollution Sources** - Specific mechanisms of environmental contamination (e.g., non-point source pollution)
- **Resource Management Details** - Fine points of sustainable harvest rates and regeneration principles

Recommendations

For Students:

1.Build on Strengths - Leverage strong social and environmental knowledge in sustainability projects

2.Address Gaps - Seek additional resources on economic sustainability and complex systems

3.Apply Knowledge - Engage in campus sustainability initiatives to deepen practical understanding

4.Stay Current - Follow emerging sustainability research and policy developments

For Curriculum Enhancement:

1.Strengthen Economic Literacy - Integrate more content on wealth distribution and pricing externalities

2.Develop Systems Thinking - Use case studies and scenarios to build skills in analyzing complex sustainability problems

3.Emphasize Interconnections - Highlight links between environmental, economic, and social dimensions

4.Real-World Applications - Connect theoretical knowledge to local and regional sustainability challenges

Summary

Wenzhou-Kean University students demonstrated solid overall sustainability knowledge with an average correct answer rate of 73.39%. Performance was particularly strong in social sustainability concepts and basic environmental science. Perfect scores on institutional-specific questions (Chinese environmental agency) and universal ethical principles (worker welfare) indicate excellent foundational knowledge.

The main opportunities for growth lie in economic sustainability concepts, particularly around wealth distribution and pricing externalities, as well as complex scenario analysis requiring systems thinking. These findings suggest a well-rounded sustainability education program with specific areas identified for targeted enhancement.

The results provide a strong baseline for ongoing curriculum development and student learning outcomes assessment in sustainability education.

ABOUT THE WENZHOU-KEAN UNIVERSITY GREEN CAMPUS

With its international education background, Wenzhou-Kean University is committed to building a smart and green campus and leading technological innovation in serving the country's Double Carbon Goal. We aim to play a pioneering and leading role in achieving a carbon-neutral society, thereby enhancing our positive impact on the local and global environment. This is a mission we invite the entire WKU community to join us in.

Contact
Wenzhou-Kean University Green Campus
https://sustainability.wku.edu.cn

CORE PROJECT TEAM:
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