

A large fish, possibly a salmon, is captured mid-leap from a rocky stream. The water is turbulent and brownish, suggesting a natural, perhaps slightly polluted, environment. The fish's body is arched, and its tail is visible as it moves through the air. The background shows more of the stream and rocks.

# Earth Economics

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Photo Credits: Dennis Clark, WRIA 9



## GOODS

- Food
- Raw Materials
- Genetic Resources
- Medicinal Resources
- Ornamental Resources

## HABITAT

- Refugium
- Nursery





## REGULATION

- Gas
- Climate
- Disturbance
- Water regulation
- Water supply
- Soil retention
- Soil formation
- Nutrient regulation
- Waste treatment
- Pollination
- Biological Control

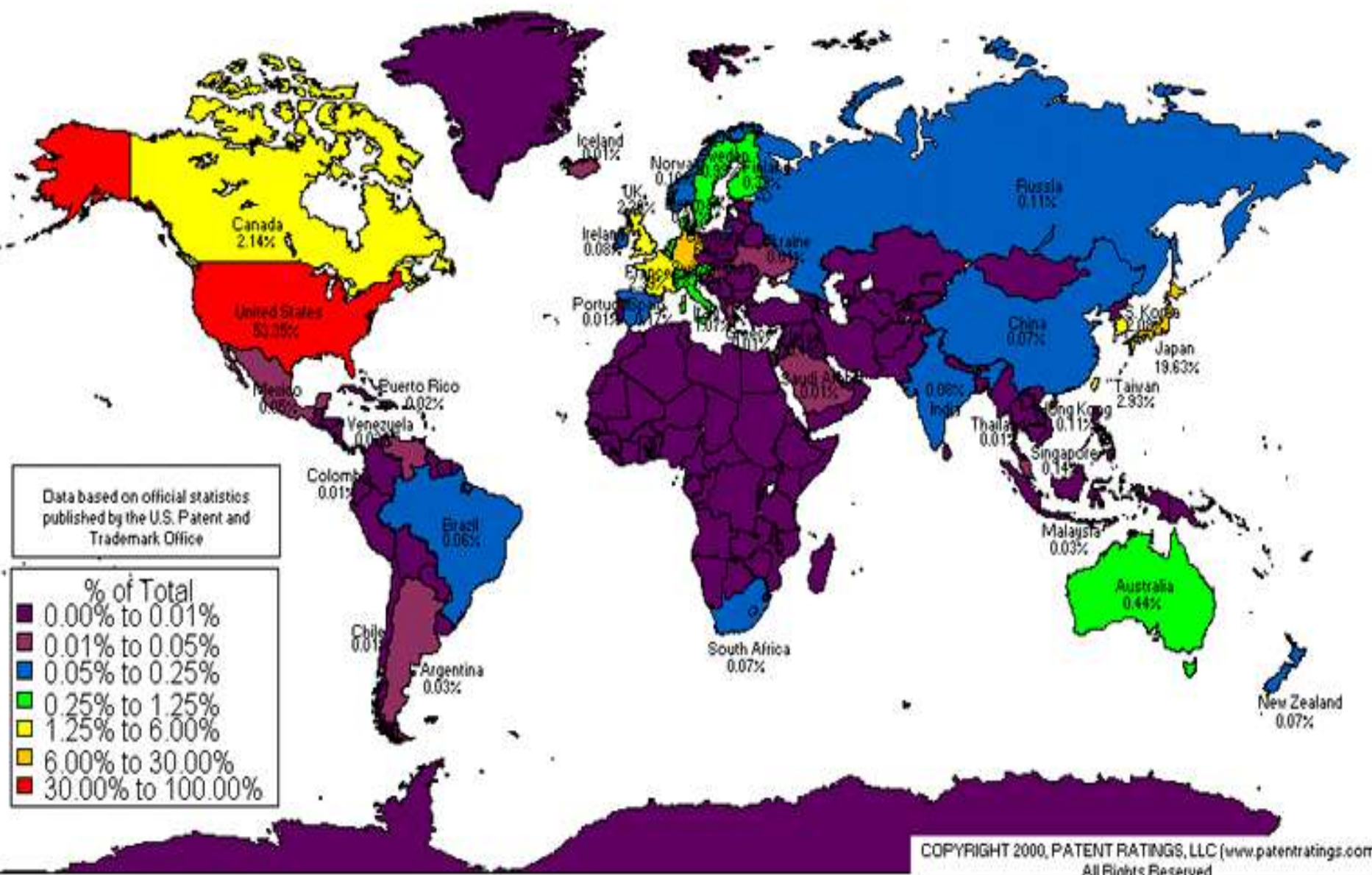




## INFORMATION

- Aesthetic
- Recreation
- Cultural/artistic
- Spiritual/historic
- Science/education

# US Issued Patents - 2000



Data based on official statistics published by the U.S. Patent and Trademark Office

- % of Total
- 0.00% to 0.01%
  - 0.01% to 0.05%
  - 0.05% to 0.25%
  - 0.25% to 1.25%
  - 1.25% to 6.00%
  - 6.00% to 30.00%
  - 30.00% to 100.00%

<b>Ecosystem Category</b>	<b>Low</b>	<b>High</b>
Forest	\$1,295,829,783	\$4,775,863,101
Grasslands and Shrublands	322,366,481	1,237,833,147
Agriculture and Pasture	6,405,977	23,135,736
Urban	7,208,896	38,084,051
Lakes, Rivers, Ponds, and Reservoirs	4,200,049	26,156,494
Wetland	25,367,121	89,705,403
Coastal	5,472,559	29,444,372
High Altitude Rock & Ice	24,599,206	84,280,699
<b>Total Values</b>	<b>\$1,691,450,072</b>	<b>\$6,304,503,003</b>

# Low Value Range of the Green River Watershed Ecosystem Services

\$1.7-6.3 billion

Each Year

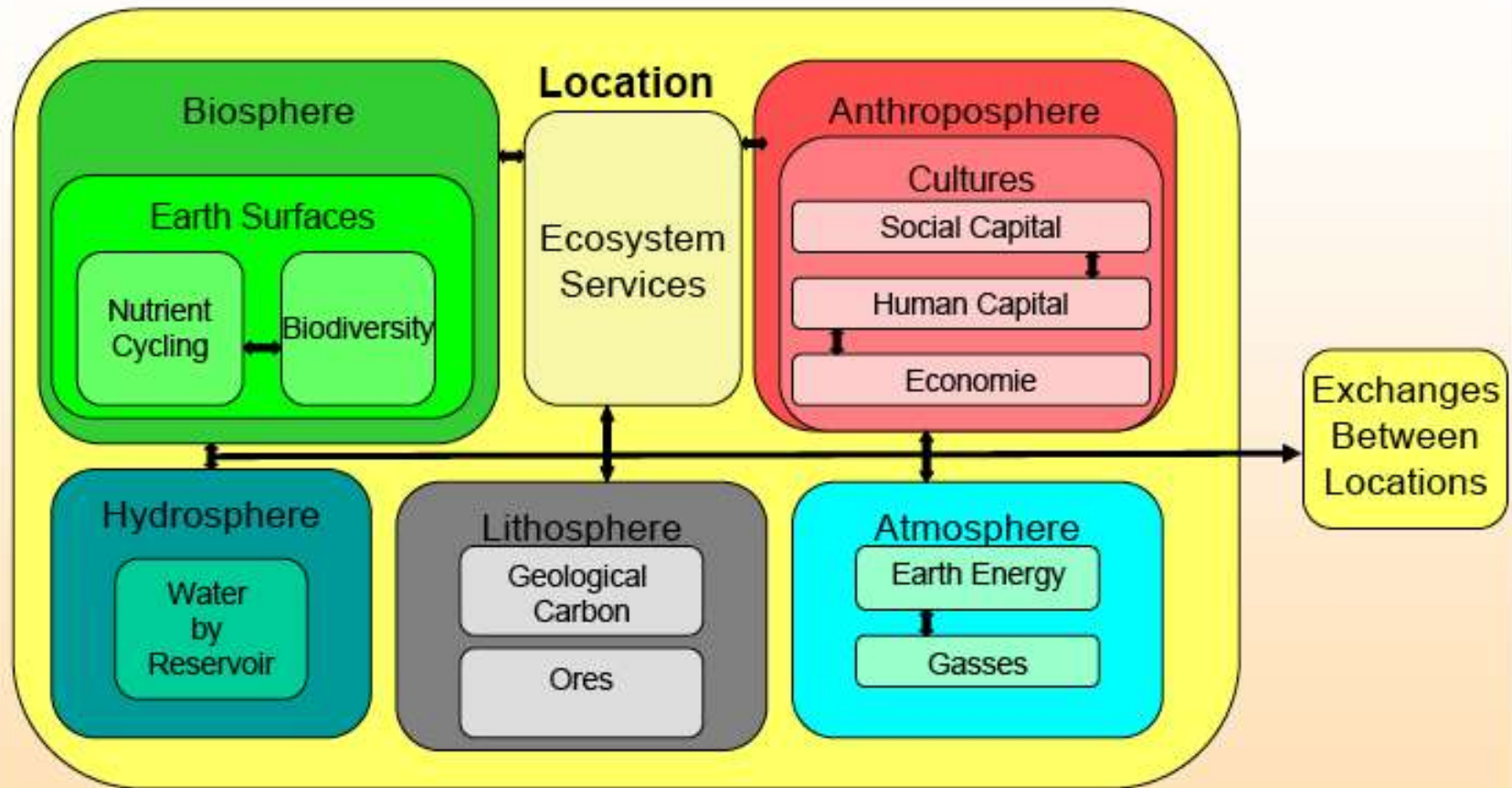
## Net Present Value

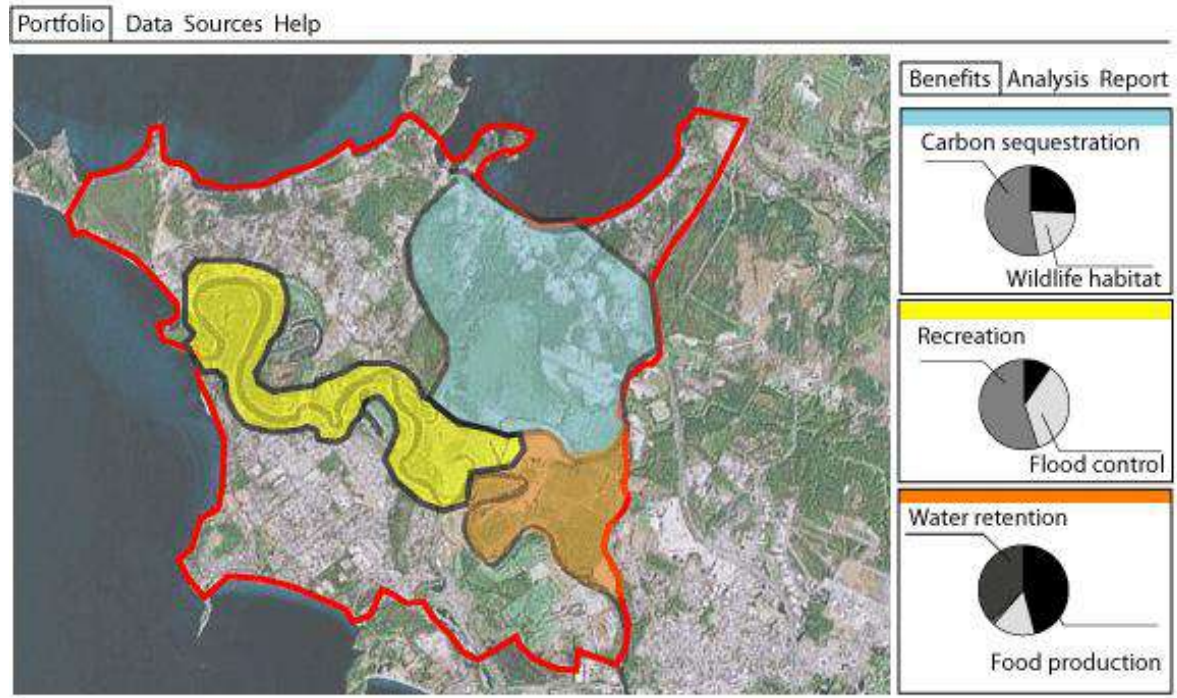
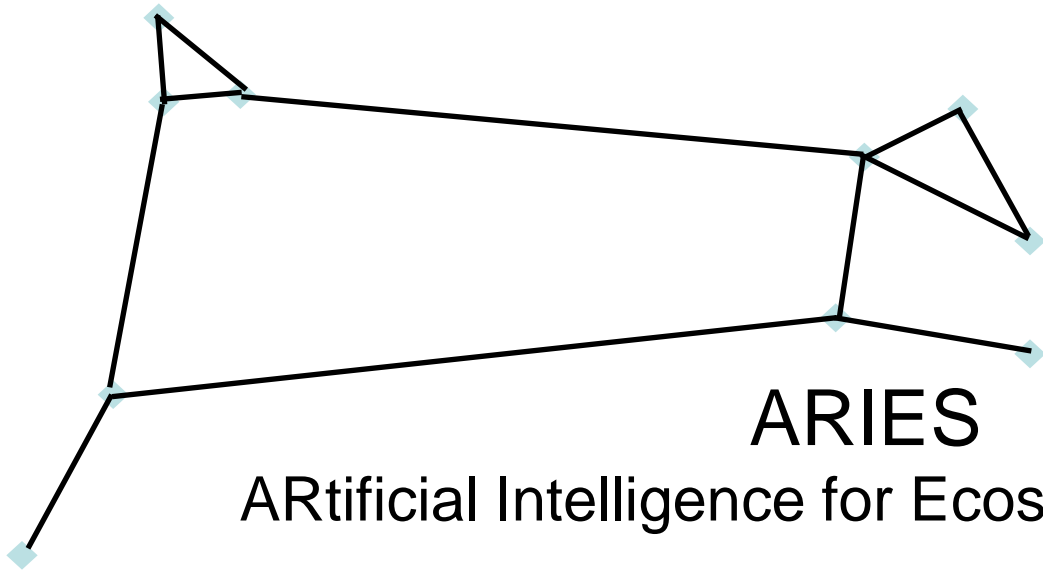
\$48.5-180.7 billion

(3.5% discount rate)

# MIMES

Multi-scale Integrated Models of Ecosystem Services





**Thank you**



