

The background of the entire page is a photograph of a large, dramatic storm cloud, possibly a supercell, with a bright yellow and orange glow from the sun breaking through on the left side. The sky is a deep blue, and the foreground shows a white fence and dark silhouettes of trees and buildings under a darkening sky.

EARTH AND ATMOSPHERIC SCIENCES  
FIVE YEAR  
**STRATEGIC PLAN**



# Mission statement

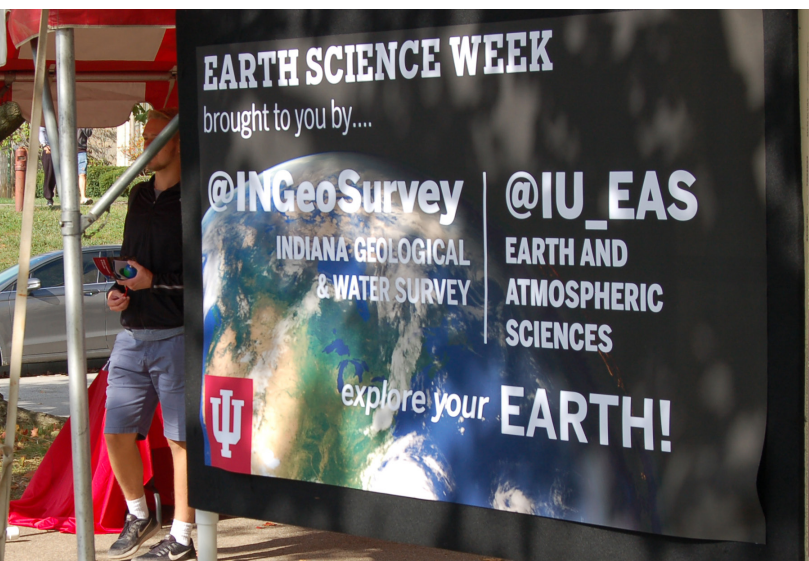
To advance understanding of our Earth and atmosphere through innovative science, education, and societal engagement.

*We strive to understand Earth's systems, processes, and history, to develop the next generation of geoscientists and informed citizens, and to motivate the university and society to address critical factors that will shape our planet's future, including utilization and availability of Earth resources, mitigation of natural hazards, environmental preservation, and climate change.*



# Vision

*We aim to increase our overall visibility at Indiana University by enhancing our national and international reputation in research, and expanding innovative graduate and undergraduate training for the state, the nation, and the world.*



# an educational experience that **MATTERS**

## Increase enrollments by 10% each year

Metric: Number of credit hours

### STRATEGIES:

Develop new, timely, topical 100-level courses that incorporate current pedagogical technology, online instruction, and essential critical thinking skills.

Add 200-400 level courses in areas of water, energy, natural resources, natural history and climate that will attract students seeking major in B.S. Earth Sciences and B.A. Earth and Atmospheric Sciences.

Increase the number of courses that are part of Bachelor of Science Environmental Science (BSES), B.A. in Environmental and Sustainability Studies (BAESS), MS in Environmental Sciences (MSES) and other interdisciplinary programs.

Ensure enrollment and development (succession plans) in the Montana G429 and in the Tanzania X377 Field courses. Revise course design to allow more IU faculty to be involved in field training without requiring a 5-6 week commitment.

## Improve the graduate student experience

Metrics: Increase in number of graduate students who receive external funding.

### STRATEGIES:

Facilitate student grant writing to increase the number of graduate students receiving external funding (maybe offer a 1 or 2 credit grant writing class in the fall in anticipation of NSF/NASA Fellowships, GSA grants, etc).

Distribute graduate course offerings to maximize enrollments on a semester by semester basis.

Encourage timely progressions toward degree completion.

Increase departmental funding for student recruitment, stipends, and travel to recruit blue chip students. This will necessitate further fund raising efforts in cooperation with the development office and departmental alumni.

## Increase the number of Majors by 10% each year

Metric: Number of majors in Fall 2017 is 65

### STRATEGIES:

Create and promote a B.A. in Earth and Atmospheric Sciences, incentivizing students desiring this option to pair with their major in another discipline.

Promote our revised B.S. undergraduate curriculum as one that reflects the breadth of Earth and Atmospheric Sciences and expands relevance to tomorrow's career opportunities.

Develop and offer interdisciplinary certificates in concentration areas related to the geological and atmospheric sciences to promote academic partnerships and advance interdisciplinary learning.

## Focus departmental efforts on career placement of students at all levels

Metrics: the number of students accepting employment, acceptance to graduate programs or post-doctoral positions.

### STRATEGIES:

Identify and quantify the specific U.S. and Indiana based companies that hire graduates with these skills, the total job market for such graduates, and the relative changes in these markets over the trailing five years as well as all available projections of the growth of these job opportunities for five years in the future.

This will allow students to assess their future employment opportunities outside of academia, and will allow them to adjust their line of studies to better suit the future job market.

Maintain our connections/reputation with the energy resource industries.

Expand awareness of other industries and career paths among our students (e.g. environmental, government, and policy) and develop new efforts to connect with the environmental consulting industry.

Expand our department efforts of placing students in internships during their educational career.

Work with the Walter Center for Career Achievement to establish an annual career event for undergraduate students seeking jobs and internships in Earth and Atmospheric Sciences.



# groundbreaking **RESEARCH**

(literally, in some cases)

## Enhance our national and international reputation in research

Metric: Increased graduate student enrollment, funding and publications

### STRATEGIES:

Hire two new faculty members in Atmospheric Sciences to attain a critical disciplinary mass to meet the instructional needs mandated for employment by the American Meteorological Society. This will also expand the expertise of atmospheric sciences on campus, and bridge cross-disciplinary divides among the Atmosphere-Earth Surface-Geology research focus areas of the department. Potential disciplinary hires:

- Regional climate modeling

- Global climate modeling

Hire to maintain strengths in key disciplines (e.g. Earth Materials, Seismology), expand our expertise (e.g. Hydrology and Environmental Science).

Increase gender and cultural diversity (US Citizens).

Leverage the best G429 field course participants as potential new graduate students.

Increased graduate students, funding and publications.

## Develop a post-doctoral fellowship program within the department

Metric: Number of post-docs.

### STRATEGIES:

Multiple non-discipline-specific post-doctoral positions awarded to faculty members on a competitive basis that will increase our national and international research reputation. (Requires joint college and departmental fund raising effort).



## Increase research productivity among our faculty

Metrics: Number of publications/faculty, research expenditures/faculty

### STRATEGIES:

Increase the number of research staff by 50% by raising funds for hard-money lab manager positions. (Requires joint college and departmental fund raising effort).

Initiate efforts for faculty to engage in leadership roles in interdisciplinary research efforts (e.g., water, climate, natural hazard mitigation).

Provide seed money for initiatives.

Develop cross campus workshops to approach research problems from multi-disciplinary perspectives.

Increase the caliber of graduate student applications.

Maintain and build upon our international collaborations.



an environment for **ALL**

## Develop an environment of inclusiveness in our department

### STRATEGIES:

Appoint/elect from the faculty a Director of Diversity who reports monthly on departmental diversity issues, informs the faculty of campus and national events related to diversity in science and EAS, and collects/distributes resources on the importance of diversity in science and industry.

Increase the cultural and gender diversity of our faculty to become a departmental community that reflects the broad diversity of students who will enter our profession in the next generation.

Initiate efforts to recruit and enroll undergraduate and graduate students from under-represented minorities and non-traditional backgrounds.

Increase efforts toward improving retention of female and minority students and faculty.

Increase efforts toward improving recruitment and retention of international students.

Identify and remove barriers of inclusivity in our department.

Enhance curricular experience of our students from diverse perspectives.



# Implementation

Our vision and strategic plan will become a living document to guide the advancement of our department as we approach and surpass the University's (and our department's) Bicentennial in 2020. Toward this end, we will create an Implementation Committee charged with tracking our progress and assessing our success to achieving our vision.

At the beginning of each academic year, the committee and department staff will compile the metrics associated with each of the goals.

They will analyze what strategies were implemented or completed. With this information, collected over time, they will assess which strategies are working and which are not. The faculty, with the consultation of the Chair, Advisory Board and Dean, will meet and decide which strategies to continue, which to expand, and which to eliminate. This will also allow the flexibility of readjusting our goals if one goal is more successful than another.





**INDIANA UNIVERSITY**  
BLOOMINGTON

**FULFILLING *the* PROMISE**