IPRO 325

Developing affordable products for the poor of the world

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Advisors: Daniel Ferguson and Dr. Ken Schug

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Mission

"To create a program that makes an impact on problems of the world's poor"

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Methodology and Agenda

- Research general scope of poverty
- Research organization and university precedents
- Research 10 problems of poverty
- Identify the 3 most relevant problems
- Further research the 3 respective dimensions
- Propose future IPROs that respond to the conducted research and the IIT community
- Create campus-wide awareness regarding global poverty

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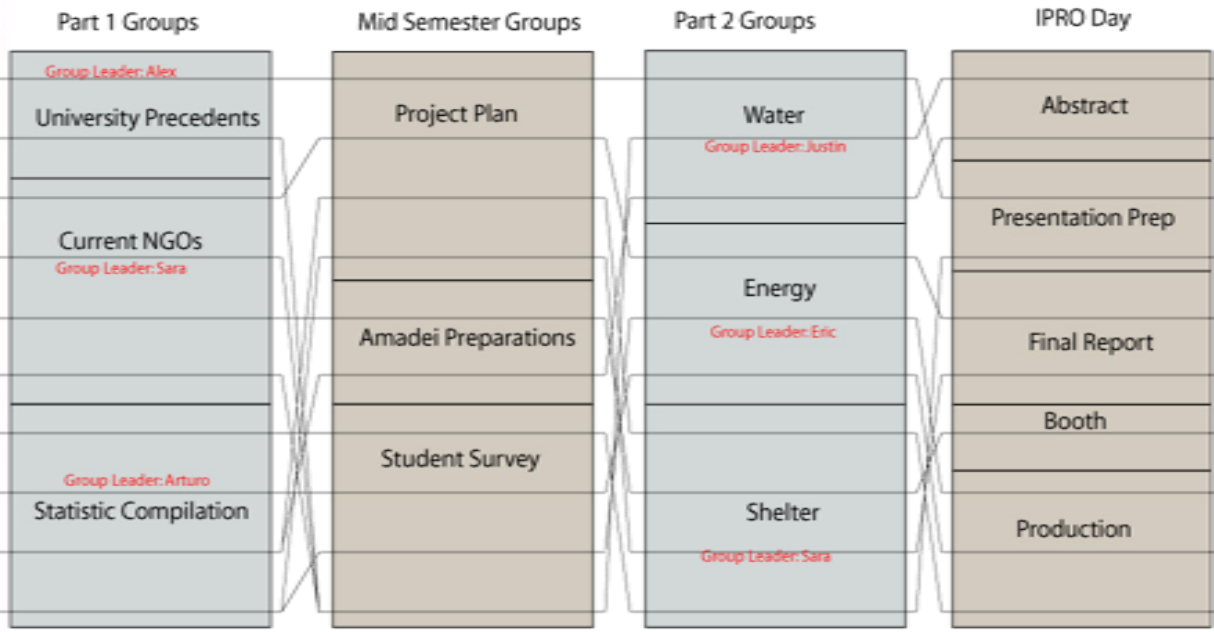
Our Team

		Individual Research
Team Leaders:	Eric	Energy
	Sara	Shelter
Secretary:	Thomas	Transportation
Timesheet Coordinator:	Justin	Communication
Schedule Coordinator:	Alex	Employment
	Arturo	Food/Nourishment
	Hu Di	Health
	Crystal	Social Structure
	Richard	Water
	Cesar	Education



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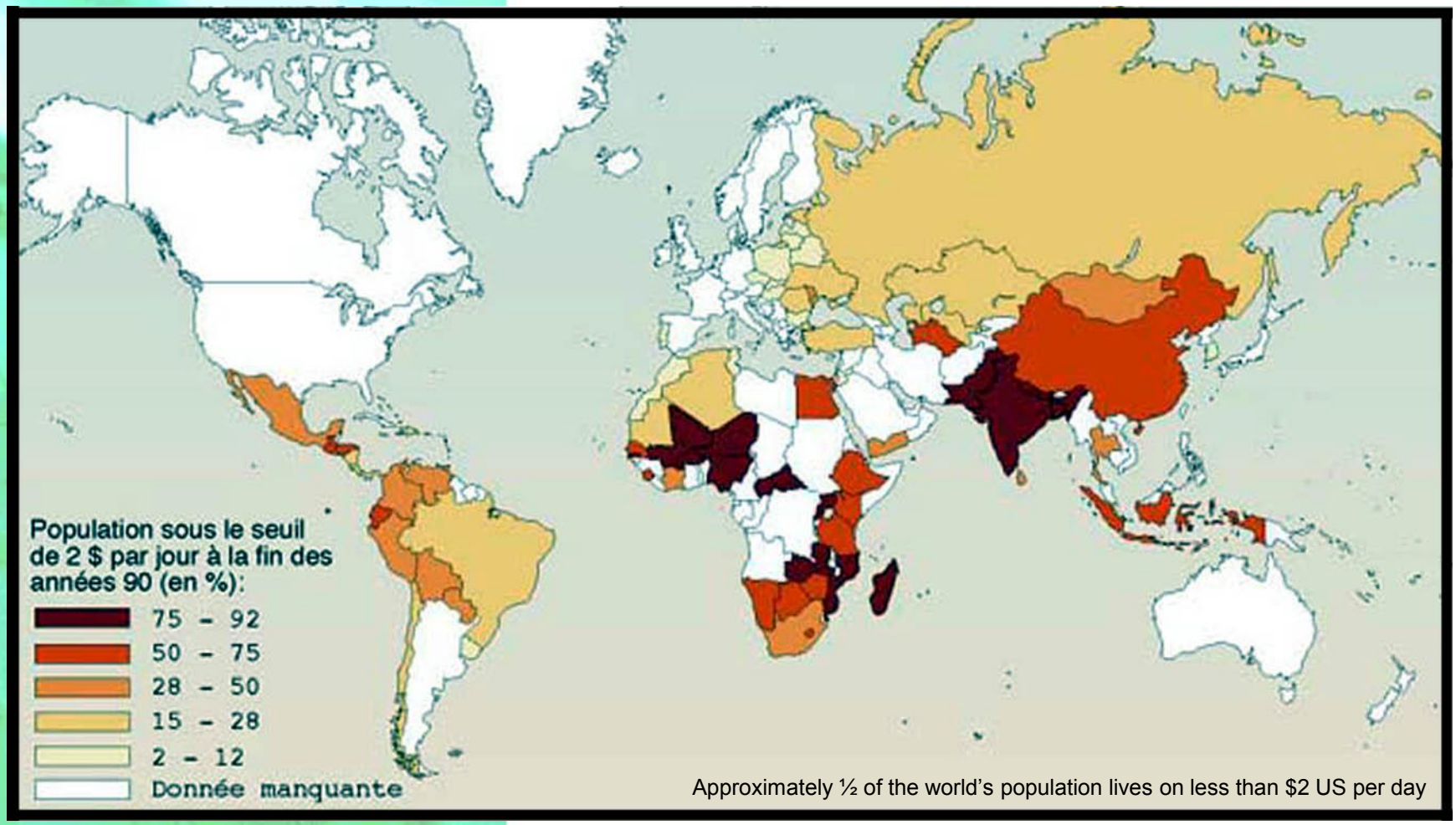
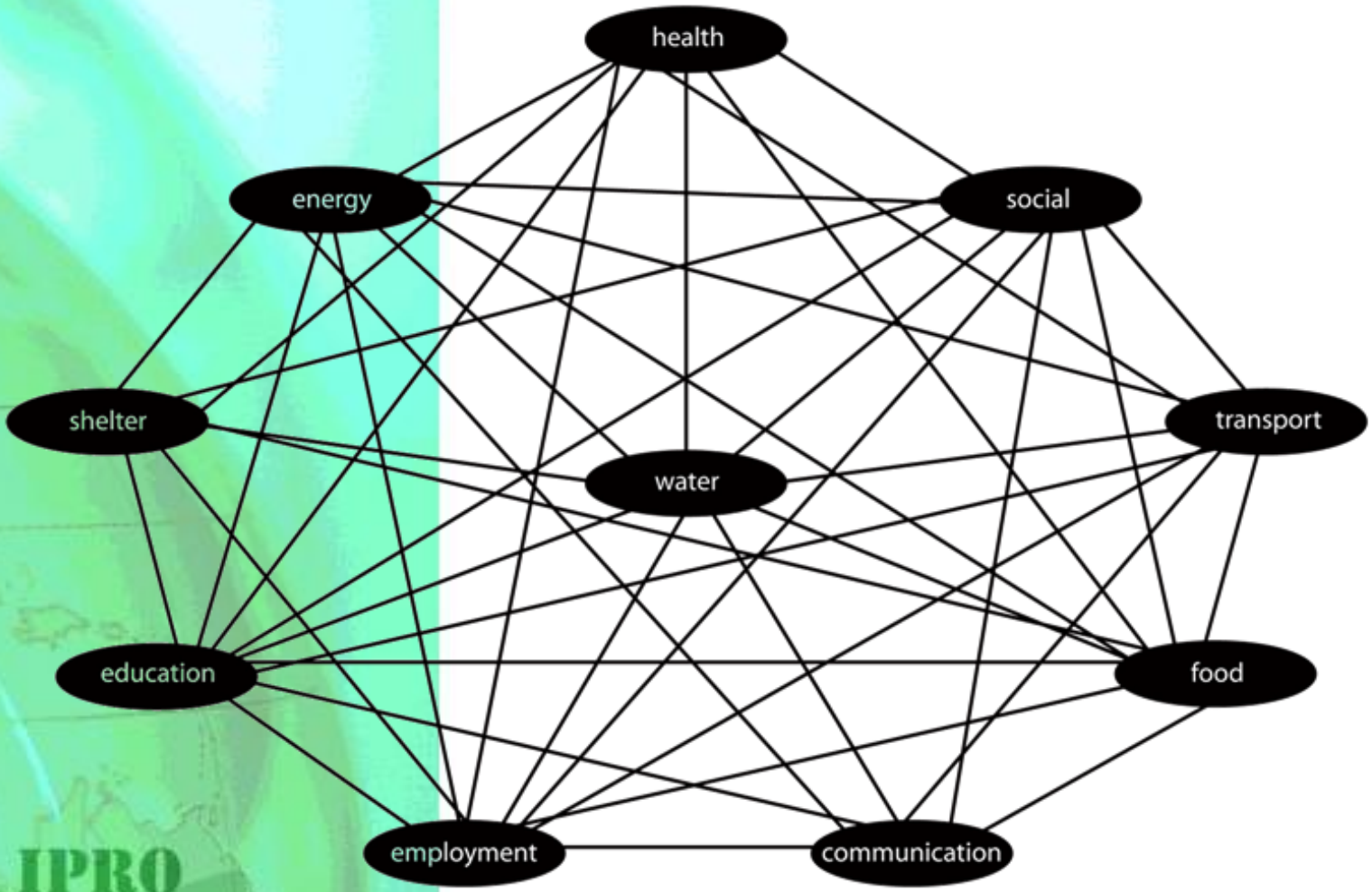
General Scope of Poverty



Approximately ½ of the world's population lives on less than $2 US per day

10 Facets of Poverty



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Organizations Addressing Poverty

Criteria for choosing IIT partnering organizations

- Affordability of solution
- Feasibility of cooperation
- Method of execution
- Scope of vision

Universities Addressing Poverty

Criteria for choosing IIT partnering universities

- Focus on rural poor- not urban poor
- Similar to IIT (Undergraduate involvement and multidisciplinary
- Action/product oriented
- Involving classes/projects

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK

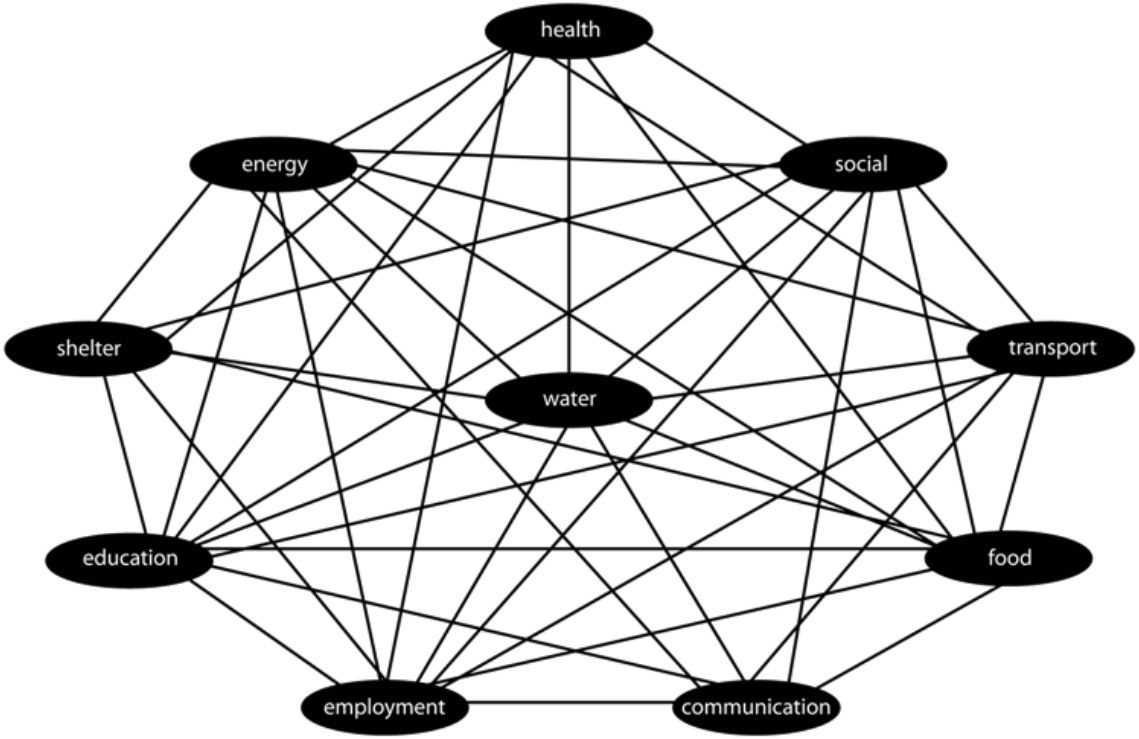
MichiganTech

Judgment Day

Deciding which issues of global poverty are most pertinent to IIT students and faculty interests and capabilities

Criteria for judgement of 10 poverty issues:

- Issues impact large number of people
- Issues impact people deeply (degrees of connectivity)
- Issues can be looked at by groups at IIT



Final Decision:

Energy Water Shelter

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Dr. Bernard Amadei

Founder, Engineers Without Borders USA

Spoke at IIT on Nov 6 to raise awareness on issues of global poverty—nearly 100 students and faculty in attendance!

"More than $1 Trillion is spent each year on weapons, but it would only take $40 Billion to relieve the world's poor."

"We are seeds of change"

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Energy

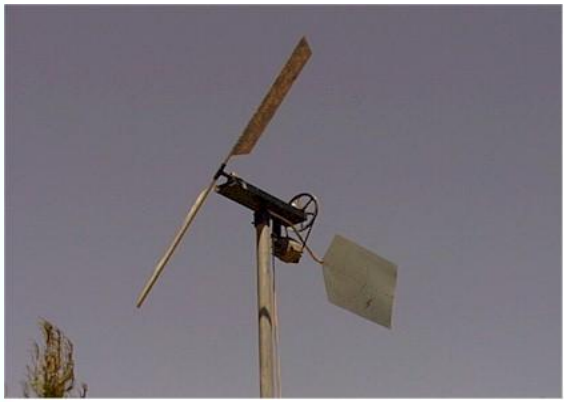
Problem: The more energy that is available, the cheaper it is.

Translation: The poor need to spend much more energy on vital processes.

Solutions: Biogas

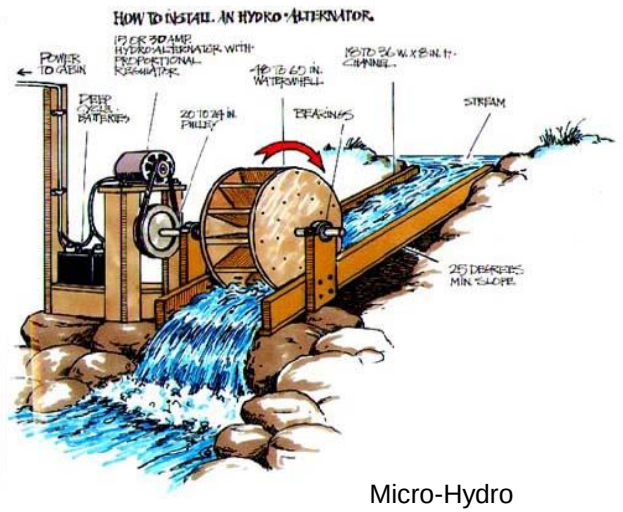
Gas Collector

Wind



Wind Turbine

Hydro



Micro-Hydro

Water

Problem: 1.1 Billion people lack access to clean water

Millions more lack enough to water crops

Access

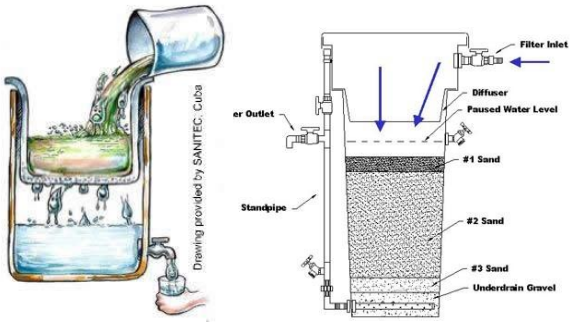
Sanitation

Irrigation

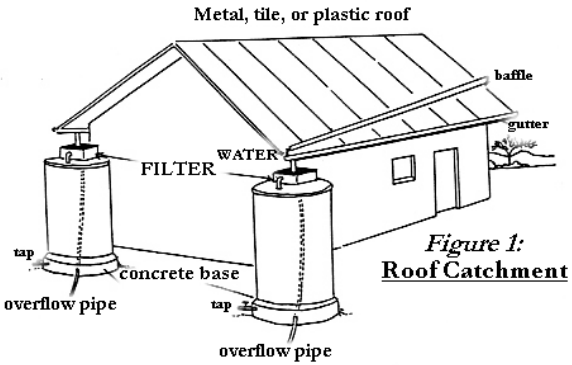
Solutions:

Drip irrigation

Filters



Water Catchment Systems



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Shelter

Problem: Over 1 Billion people live in very poor, insecure, or temporary shelter

Urban Homeless

Natural Disaster Relief

Community Shelter

Solutions:

Shelter in a Cart

Concrete Canvas

Schools/Hospitals

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Conclusion

"All the statistics in the world can't measure the warmth of a smile."

~Chris Hart

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Acknowledgements

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IPRO 325

Questions?

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