# Redefining Sustainability to educate about artisanal and small-scale mining across disciplines

Saleem H. Ali

University of Vermont, USA

www.saleemali.net

## Challenges and Opportunities

- Considering the question of "weak" (nonrenewable resources) versus "strong" (renewable) sustainability
  - Revisiting I=P X A X T
- The linkage between energy and resource usage and development
- The irreversibility of impacts and the salience of restoration ecology

### 7 Questions to Sustainability

#### 1. Engagement:

Are communities part of the negotiation process for any development effort?

#### 2. People:

Will the well-being of inhabitants in the area be maintained or improved, as measure by objective welfare criteria?

#### 3. Environment:

Is the integrity of the environment ensured over the long term?

#### 4. Economic viability:

Is the project or operation economically viable, and will the community be better off as a result of the project in the long term?

#### 5. Traditional and nonmarket activities:

Are livelihood potentials, such as subsistence hunting, going to be adequately protected during the course of the project?

#### 6. Institutional arrangements and governance:

Are rules, incentives, programs, and capacities in place to address project or operational consequences?

#### 7. Synthesis and continuous learning:

Does a comprehensive analysis show the net outcome of the project to be positive, and how will periodic assessment validate this finding through the course of the project?

# Treasures of the Earth: Need, Greed and a Sustainable Future (Yale University Press, 2009)

