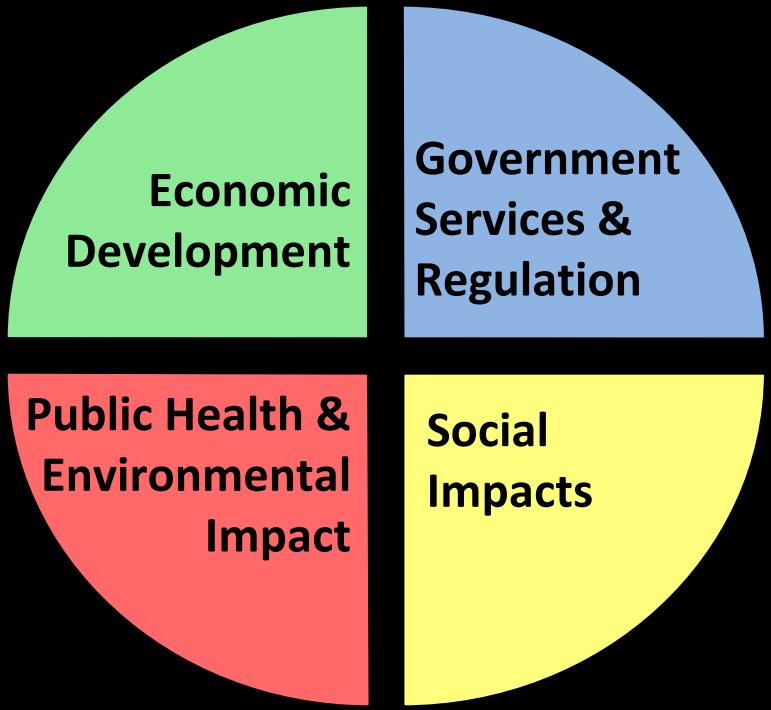
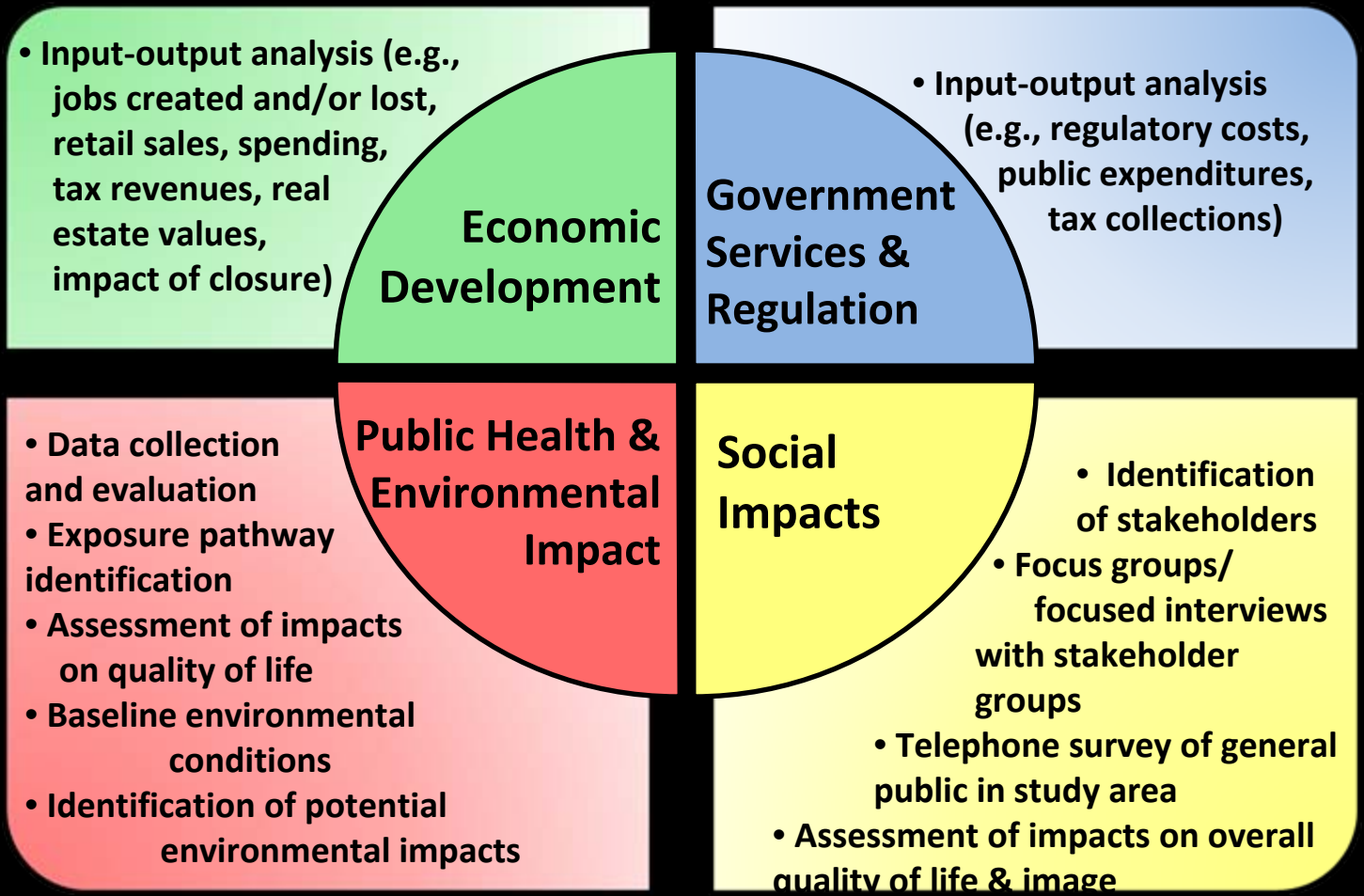
A Proposal to Conduct a Study of the Impact of Uranium Mining and Milling Operations on Economic Well-being and Quality of Life in Coles Hill, Virginia and the Surrounding Region

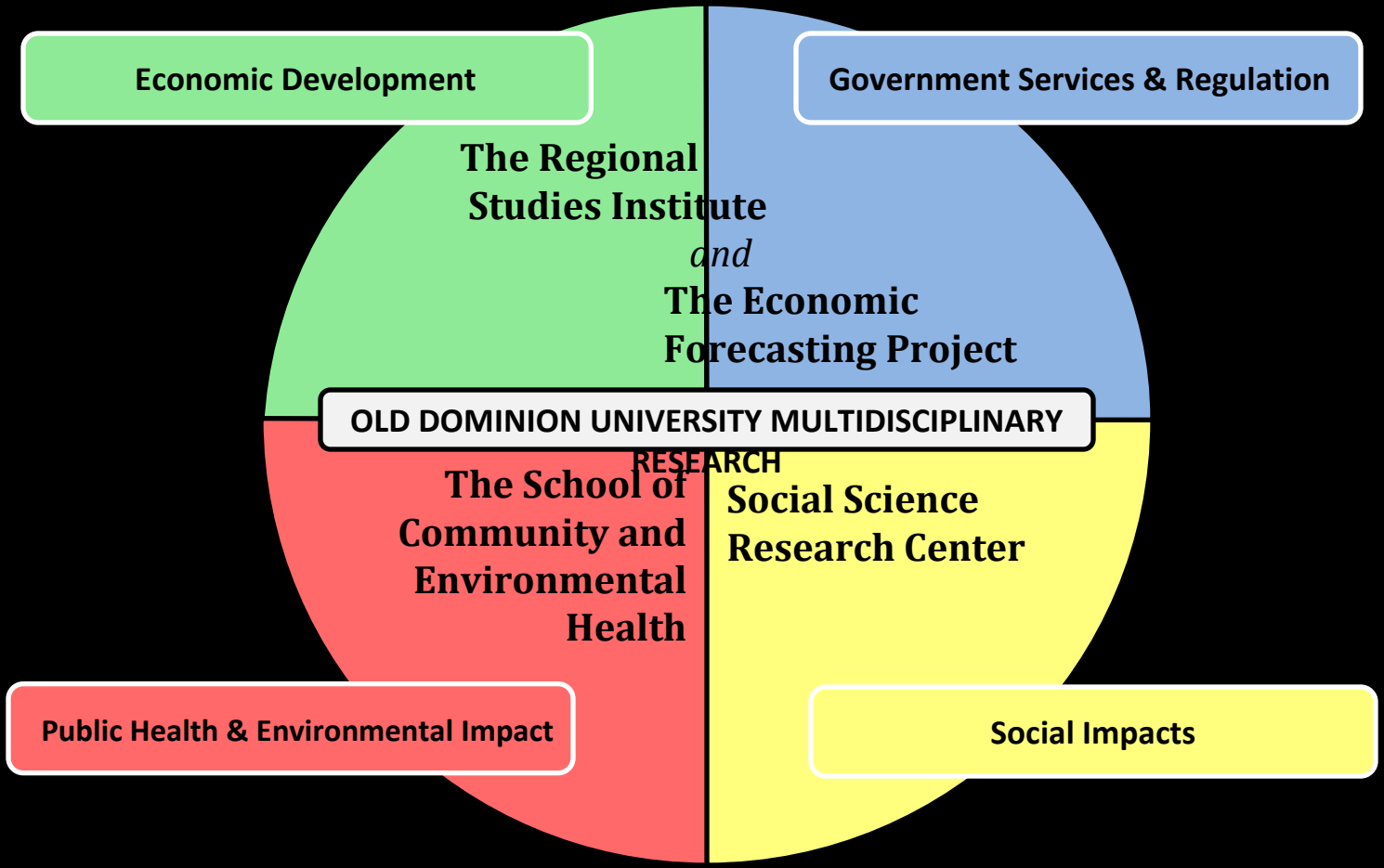
SUBMITTED BY OLD DOMINION UNIVERSITY



Socioeconomic Study Domains – Impact of Uranium Mining



ODU's *Multidisciplinary* Expertise



Socioeconomic Study Domains

Economic Development

"Input-Output analysis" via the RIMS-II model

Models will include:

- U308 uranium prices per pound
- At least (3) different sizes for the Coles Hill uranium deposit
- At least (3) different scenarios as to how rapidly mining will take place over the next 30 years
- At least (3) different rates of increase for the Consumer Price Index, annual wage and compensation increases - depending upon uranium extraction method

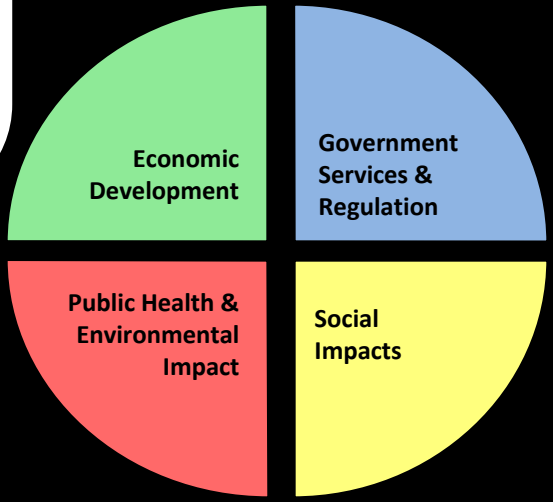
The Variable Price of Uranium

Over the past two decades the spot price of U308 has fluctuated between a low of about $10 per pound and to a high of about $140 per pound. The "spot price" is the price that is charged for immediate delivery. Currently, the spot price is approximately $52 per pound.

The Impact of Uranium Price

The reality is that the price of uranium will critically determine the benefits generated by uranium mining in and around Coles Hill. Since the price of uranium is highly variable, the prospective benefits and impacts of uranium mining are also likely to be highly variable.

ODU will model different scenarios based on a range of possible uranium prices.



Socioeconomic Study Domains

Economic Development

Spin-off and environmental costs will be estimated

Estimates to stop and re-start production due to volatile price of uranium

Production termination costs including:

- Population contraction
- Declining K-12 school populations
- Declining tax revenues
- Cleaning and remediation including ground water restoration

Socioeconomic Study Domains

Government Services & Regulation

Different models to address the regulatory, remediation, and public service costs such as public education, law enforcement, transportation, and social services.

Models will include:

- U308 uranium prices per pound
- At least (3) different sizes & qualities of the Coles Hill deposit
- At least (3) different scenarios regarding how rapidly the uranium will be mined

The experiences of other states will also be considered.

Socioeconomic Study Domains

Public Health & Environmental Impact

Characterization of baseline environmental conditions

Regional/local geology & geography

- Descriptions of climate, surface water hydrology, hydrogeology, soil, water quality, and natural radiological conditions, resource and land use, and the nature of human livelihood and culture
- Identification of potential environmental impacts
  - EPA Cost of Illness and Injury data to estimate potential costs
- Assessment of exposure pathways
  - Air, drinking water, soil, food and potential impacts from radon exposure

Socioeconomic Study Domains

Public Health & Environmental Impact

Impact on Quality of Life

- Quantify value placed on health care, recreation, education, and other social impacts
- Telephone survey

Assessment of environmental justice impacts

- ArcGIS mapping of housing density, economic & demographic census data, and EPA toxic release data

Review of Post-closure procedures

- Expert panel convened to provide comment on plans

Socioeconomic Study Domains

Focus groups with community members and stakeholders (e.g., educators, economic development and business leaders, health services, farmers, environmental groups, and the general public) to address salient issues/topics

Focus groups to inform telephone survey of general public

- Measure quality of life and satisfaction with current conditions and concern about potential impacts of mining
- Compare view of current conditions with beliefs about what will happen after the mining/milling begin

Social Impacts

EXPERIENCE

Economic Development

Government Services & Regulation

James Koch, PhD

- Produces an extensive State of the Region Report for the Hampton Roads' area – annually since 2000
- Conducted economic impact studies for Fortune 500 firms and several Hampton Roads organizations
- Significant experience with the mining and steel making industries

EXPERIENCE

Economic Development

Government Services & Regulation

Vinod Agarwal, PhD

- Member of Governor's Revenue Forecasting Committee
- Principal faculty with ODU's Economic Forecasting Project
- Produces annual and quarterly economic forecasts for Hampton Roads as well as an economic scorecard card for the nation and Hampton Roads

EXPERIENCE

Public Health & Environmental Impact

Anna Jeng, ScD

- Governor appointee to the State Board of Health
- Extensive research in environmental health including two federal projects on assessing male reproductive health of workers exposed to organic compounds from coke oven emissions and hot asphalt

EXPERIENCE

Public Health & Environmental Impact

Jim Blando, PhD

- Served as a research scientist on multiple occupational and environmental health projects in New Jersey
- Previous public health work in the nuclear power sector
- Experience evaluating the effectiveness of various emergency preparedness education efforts

EXPERIENCE

Social Impact

Xiushi Yang, PhD

- Social demographer with extensive survey research experience
- Sampling expertise in population-based sampling and hard-to-reach populations

EXPERIENCE

Social Impact

Tancy Vandecar-Burdin, PhD

- Manages several several survey research and data collection projects with state agencies including the VA Department of Behavioral Health and Developmental Services, VA Department of Transportation, and the VA Department of Health
- Supervises the SSRC CATI lab and telephone researchers

Socioeconomic Study Assumptions

- Study funds in the amount of $200,000 will be available for a project start date in early January
- Staff from the VA Center for Coal and Energy Research, the Uranium Mining Subcommittee and/or the VA Coal and Energy Commission will provide general project information and guidance
- The study area includes the Coles Hill area and Pittsylvania County

Contact Information

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