

## **Social Impact Assessment (SIA)**





# Why should we care about society and environment?

# because you will lose in long term



#### Example (Pollution):

- Maximize profit first with high pollution, then engage in environmental projects.
- Any effect to the life and health lost during severe pollution?







<u>http://hedleyindex.sph.hku.hk/html/en/</u>



# **Social Impact Assessment (SIA)**

# measuring outcomes, not outputs# engagement of all stakeholders# well developed in UK, not HK



# Input-based measurement

# **Output-based measurement**

# **Outcome-based measurement**





#### **Output vs Outcome**



Output

#### Outcome



### Rain Shelters in Quarry Bay (Cost HK\$210,000)









#### Step 1:

What are potential outcomes of the project?

Who are stakeholders of the project?

Literature Review

Publications: impact assessments GOV.UK

• Focus Groups





#### Stages of SIA

### Step 1:

#### **Focus Groups**

- Focus Groups:
  - Define properly the targeted groups
  - Avoid "Yes/No" Questions
  - More "What", "How", "Why"
  - Encourage discussion
  - Be objective





#### Step 2:

#### Any proof of the outcomes?

- Questionnaire
- Control Group Experiment (more resource consuming)



Analysis



- Levels of Evidence (best to worst):
  - 1. All outcomes with randomized controlled trials (RCTs).
  - 2. At least one outcome with RCT.
  - 3. Controlled trials without randomization (quasi-experiment).
  - 4. Case-control, cohort studies and econometrics
  - 5. Systematic reviews of descriptive and qualitative studies
  - 6. Single descriptive or qualitative study
  - 7. Opinion of authorities and/or reports of expert committees



### Stages of SIA

#### 1. Randomized Controlled Trials : golden rule for medical research







## Stages of SIA

#### 1. Randomized Controlled Trials :

Pros:

- Most robust and convincing
- Can determine the cause-and-effect relation

#### Cons:

- Most resource and time consuming
- Most difficult to apply for political research and social science research
  - Hard to enforce a policy to a randomly chosen group of people



3. Controlled trials without randomization (quasi-experiment)

- Alpha Test, Beta Test (Apps and software development)
- Minimum Viable Product, MVP (Product Development / Start Up)
- Pilot Test (Government policy and business strategies)







#### 4. Case-control, cohort studies and econometrics

• Easy but not convincing for cause-and-effect relation







#### Robustness

Cost and Time





#### Step 3:

# What are the values of the outcomes?

- Quantification + Benchmarking
- Financial Proxies
- Monetization (very resource consuming) Washington State Institute for Public Policy

Stated Preference Revealed Preference Subjective Well-being



• We are, in fact, measuring the red area.







#### Step 4:

#### How can we use the results?

Improvements for a project
Cost and benefit comparison for a project





# **Common SIA Frameworks in HK**

Kirkpatrick model of Fullness **B** Impact Assessment SEE Mark SROI SIA of HKCSS TIMM of PwC True Value Model of KPMG



# Data Bank



# **Examples of Data Bank**

The Value of Recreational Activities p	er activity day	<u>y (in 2008 U.S. dollars)</u>	
Backpacking	\$57.84	Pleasure driving	\$65.75
Bird-watching	\$32.87	Rock climbing	\$62.45
Camping	\$41.28	Scuba diving	\$35.93
Cross-country skiing	\$34.84	Sightseeing	\$40.90
Downhill skiing	\$37.18	Snorkeling	\$33.65
Fishing	\$52.36	Snowmobiling	\$40.28
Boating (nonmotorized)	\$112.02	Swimming	\$47.39
General recreation	\$38.96	Visiting on environmental education center	\$6.67
Going to the beach	\$43.78	Visiting an arboretum	\$15.02
Hiking	\$34.24	Visiting an aquarium	\$31.43
Horseback riding	\$20.11	Waterskiing	\$54.42
Hunting	\$52.08	Wildlife viewing	\$47.03
Motor boating	\$51.36	Windsurfing	\$439.01
Mountain biking	\$81.90	Average value of a recreational day	\$52.88
Off-road vehicle driving	\$25.44		
Other recreation	\$54.06		
Picnicking	\$46.02		

Source: Kaval and Loomis (2003)



- The numbers are ready to be used to evaluate policies and social projects
- Examples:
  - Suppose a policy can allow 200,000 more HK people to go hiking 4 times per year.
  - The annual benefit can be estimated as:
    - 200,000 x US\$34.24 x 4 = US\$27,392,000 per year (in 2008 dollar)
    - US\$27,392,000 x 1.094 = US\$29,967,643(current dollar)
    - US\$29,967,643 x 7.76 = **HK\$232,548,909**



Mean Values of Wetland Habitats (per hectare per yea	Mean Values of Wetland Habitats (per hectare per year, 2008						
<u>U.S. Dollar)</u>							
Overall	\$3,948						
Woodland	\$4,512						
Freshwater marsh	\$4,935						
Salt/brackish marsh	\$3,666						
Unvegetated sediment	\$12,690						
Mangrove	\$564						

Source: Brander, Floran and Vermaat (2006)



## **Examples of Data Bank**

#### The Cost of Components of Crashes by Level of Severity (2008 U.S. Dollar)

Abbreviated Injury Scale (AIS) level	1	2	3	4	5
Medical	\$2,959	\$19,423	\$57,796	\$163,222	\$413,268
Emergency	\$120	\$263	\$457	\$1,032	\$1,058
Market Productivity	\$2,174	\$31,098	\$88,822	\$132,311	\$545,341
Household Productivity	\$712	\$9,102	\$26,197	\$34,878	\$185,600
Insurance Admin	\$922	\$8,588	\$23,485	\$40,195	\$84,773
Workplace Costs	\$313	\$2,428	\$5,303	\$5,839	\$10,182
Legal Costs	\$187	\$6,192	\$19,650	\$41,873	\$99,266



#### The Cost of Crime and the Willingness to Pay for Crime Reduction (2008 U.S. dollars)

Plug-In Category	Victim Cost per Incident Based on Millar et al.(1996)	Criminal Justice Cost Per Incident Based on Cohen (1998)	Total Cost per Incident Sum of First Two Columns
Burglary	\$2,225	\$3,225	\$5,450
Armed robbery	\$30,125	\$9,663	\$39,788
Serious assaults	\$38,100	\$6,438	\$44,538
Rape and sexual assaults	\$138,113	\$4,063	\$142,176
Murder	\$4,625,000	\$228,750	\$4,853,750



# **Database for Social Values**

Social Value Bank, established by HACT

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#### Impact and value

#### Social Value Bank

- Social value services
- Publications and tools
   Social value
- publications

   Social Value Bank
- Value calculator
- How to use your results
- Impact masterclasses
- Social value consultancy
- SVB user community
- Insight products

data

- Research and evidence
- Driving value through

HACT, working with with Daniel Fujiwara @, have created the largest bank of methodologically consistent and robust social values ever produced. The values can provide a basic assessment of social impact, provide evidence of value for money, and compare the impact of different programmes. The values can also be used within a full SROI or Cost-Benefit Analysis.

The Social Value Bank represents a major step forward in the quality of resources available to those seeking to place a social value on community-focused activity. It is available for housing providers to use at no cost.

We have developed a range of tools to apply the the values in the Social Value Bank. The first of these are the *Measuring the Social Impact of Community Investment: A Guide to using the Wellbeing Valuation Approach* (which contains headline figures from the Social Value Bank), and the Value Calculator spreadsheet tool.

We plan for the Social Value Bank to continue to grow and develop.

Social Value Bank licensing details and commercial waiver

Please click here to find out more information about the licencing agreement for our social impact values.



# **Database for Social Values**

#### Washington State Institute for Public Policy

All	Juvenile	Adult	Child	Pre-K to	Children's	Health	Substance	Adult	Public	Workforce
Research	Justice	Criminal	Welfare	12	Mental	Care	Abuse	Mental	Health &	Development
Areas		Justice		Education	Health			Health	Prevention	

#### Juvenile Justice

For questions on benefit-cost results relating to Juvenile Justice, contact Elizabeth Drake.

Program name (click on the program name for more detail)	Date of last literature review ⇔	Total benefits ≎	Taxpayer benefits ⇔	Non- taxpayer benefits ⇔	Costs ⇔	Benefits minus costs (net present value) ⇔	Benefit to cost ratio ⇔	Chance benefits will exceed costs ⇔
Family-based therapy (Parenting with Love and Limits model) NEW	Jun. 2016	\$34,691	\$9,252	\$25,438	(\$1,688)	\$33,004	\$20.56	98 %
Functional Family Therapy (youth in state institutions)	Dec. 2014	\$32,150	\$7,833	\$24,317	(\$3,427)	\$28,723	\$9.38	99 %
Education and Employment Training (EET, King County)	Dec. 2015	\$26,708	\$7,279	\$19,429	(\$855)	\$25,853	\$31.24	100 %
Functional Family Therapy (youth on probation)	Dec. 2014	\$22,316	\$6,451	\$15,864	(\$3,427)	\$18,889	\$6.51	99 %
Mentoring	Jun. 2014	\$21,283	\$5,936	\$15,347	(\$3,260)	\$18,022	\$6.53	87 %
Aggression Replacement Training (youth in state institutions)	Dec. 2014	\$17,190	\$4,017	\$13,173	(\$1,584)	\$15,606	\$10.85	92 %
Teaching-Family (group home model)	Jun. 2015	\$37,510	\$10,447	\$27,062	(\$22,101)	\$15,409	\$1.70	65 %
Wilderness experience programs	Sep. 2015	\$19,442	\$6,035	\$13,407	(\$6,388)	\$13,054	\$3.04	100 %
Cognitive Behavioral Therapy (CBT)	Dec. 2014	\$11,146	\$3,023	\$8,122	(\$390)	\$10,756	\$28.56	94 %





- No similar database for social values in Hong Kong
- Directly applying foreign data in Hong Kong may not be appropriate



- Government should set up public units to conduct social impact assessment of public policies.
- The results of the assessments can then be pooled and be accessible freely by public, creating a database of social values for Hong Kong



# Q&A