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# BENEFIT TRANSFER OF THE ECONOMIC VALUE OF NATURAL RESOURCES TO VULNERABLE POPULATIONS

**Mordechai  
Shechter**

*Dean, **School of  
Sustainability,**  
Interdisciplinary  
Center (IDC) –  
Herzlyia*

**Natural Resource &  
Environmental  
Research Center  
(NRERC), U. of Haifa**

# **BENEFIT TRANSFER OF THE ECONOMIC VALUE OF NATURAL RESOURCES TO VULNERABLE POPULATIONS**

**1. BENEFIT TRANSFER = BENEFITS**

**2. VALUE = (ECONOMIC) VALUATION**

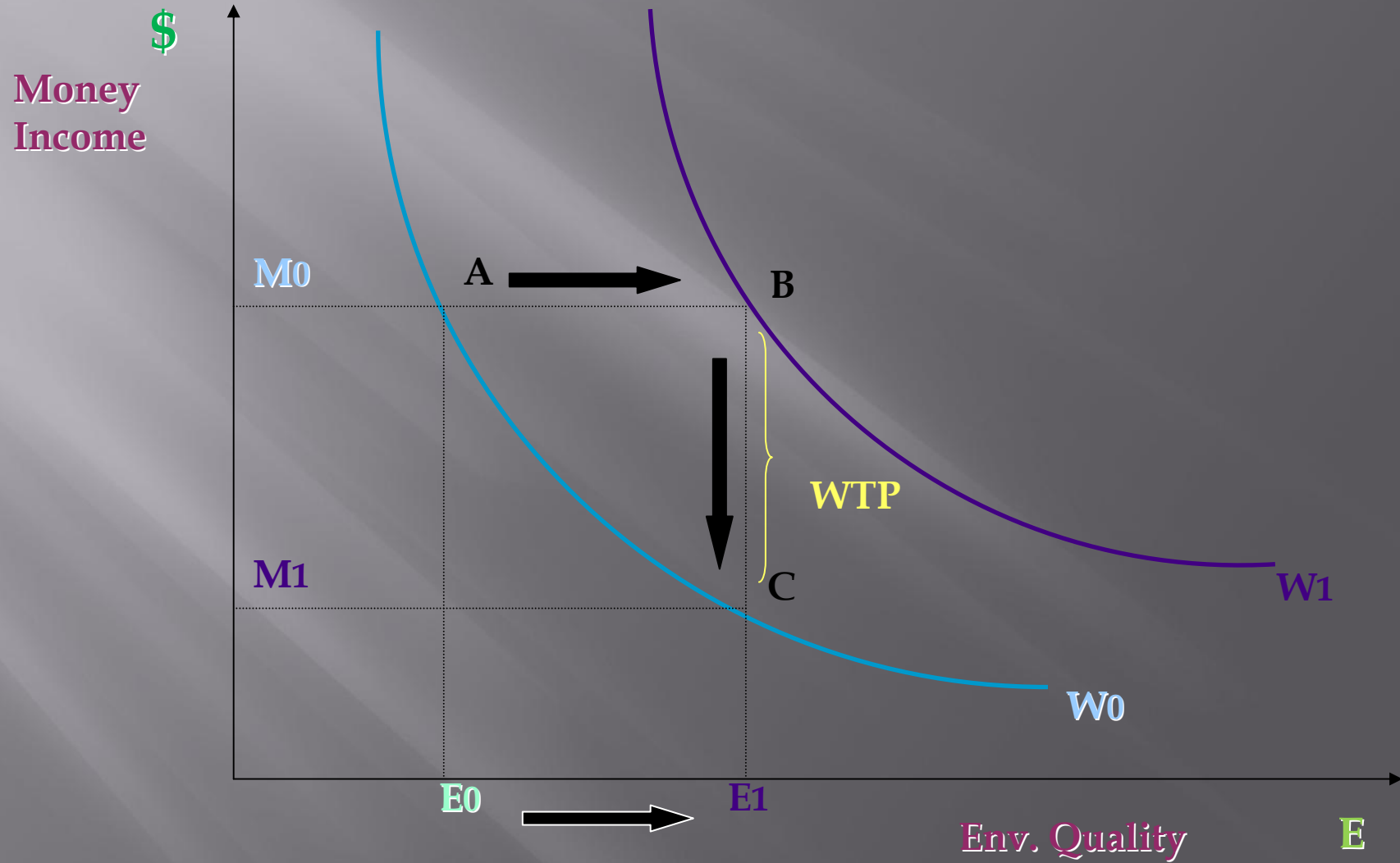
**3. TRANSFER OF ...TO VULNERABLE**

**POPULATIONS = ENVIRONMENTAL**

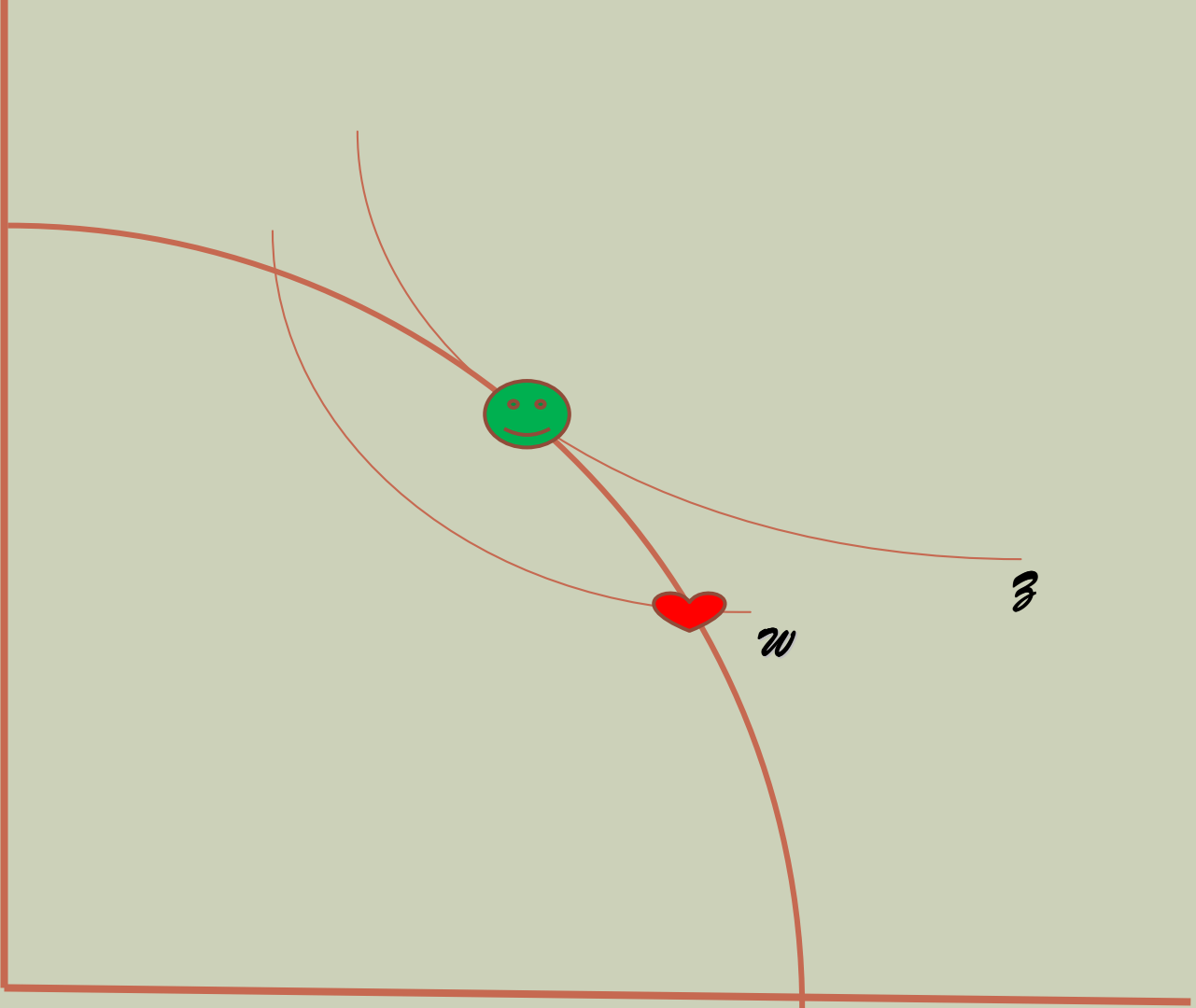
**DISTRIBUTIONAL JUSTICE**

*The  
Road  
ahead*

# Translating Preferences into \$'s



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B

# ***ENVIRONMENTAL JUSTICE***

***The right to a clean and safe environment in which to live, work, and play.***

**That definition might be expanded to include**

***The right to preserve one's cultural integrity, and to free from technological changes that inhibit such preservation.***

**ENVIRONMENTAL JUSTICE  
CASE STUDY:  
NAVAJO-HOPI STRUGGLE TO  
PROTECT THE  
*BIG MOUNTAIN  
RESERVATION***

## NAVAJO-HOPI STRUGGLE TO PROTECT THE *BIG MOUNTAIN RESERVATION*

In 1974, the federal government partitioned the Big Mountain reservation, where the **Hopi and Navajo tribes** currently reside, and transferred some of the land to private ownership. Many Hopi and Navajo were relocated to other lands, but some 300 families remain at **Big Mountain** to fight the continued exploitation of their lands by private mining companies. **These 300 families live on land that holds over \$10 billion worth of coal.** The **Peabody Mining Company** would like expand its operations, thus intruding upon **Big Mountain** residents and potentially threatening the reservation **environment**. If Peabody is successful in gaining a federal permit to mine the reservation, the remaining 300 families face relocation.

## NAVAJO-HOPI STRUGGLE TO PROTECT THE *BIG MOUNTAIN RESERVATION*

The Hopi and Navajo have co-existed for generations in the American Southwest, long before Spanish or American explorers and settlers arrived. The Hopi are generally **agriculturalists**, and had settled in small villages. The Navajo are **pastoralists**. The concept of **land ownership** is foreign to both tribes.

In 1882, the United States began a series of land boundary decisions which adversely affected the natural resource rights of both tribes, and later partitioned Hopi and Navajo reservation on *Big Mountain*, thus allowing private mining companies to stripmine on or near these reservation lands. Many families were **relocated**, and many more on *Big Mountain* still may face relocation as the mining company continues its efforts towards expanding its operations.

## **NAVAJO-HOPI STRUGGLE TO PROTECT THE *BIG MOUNTAIN RESERVATION***

**If the mining company is successful, the Navajo and Hopi lands may face**

- water quality decline**
- depletion of water supply**
- devastation of the landscape, and**
- desecration of sacred lands.**

## NAVAJO-HOPI STRUGGLE TO PROTECT THE *BIG MOUNTAIN RESERVATION*

An Environmental Impact Statement addressed the *cultural* effects of land degradation on *Big Mountain Reservation*, and stated that the effects

*"could be mitigated through careful consultation with tribal members, and payment for spiritual ceremonies on sites that will be destroyed".*

(Some would claim that this is insufficient and not a *sustainable* solution, as there is no market value that can be placed on spiritual ceremonies, and the statement lacks any sensitivity or respect for Hopi-Navajo culture.)

# NAVAJO-HOPI STRUGGLE TO PROTECT THE *BIG MOUNTAIN RESERVATION*

Several strategies have been employed by the Hopi and Navajo on Big Mountain to prevent Peabody's mining expansion onto their lands.

- Navajo elders have engaged in non-violent civil disobedience.
- Effort by the elders to increase community awareness and involvement.
- Building sites on the internet has been a valuable tool in keeping the community informed, as well as holding meetings to discuss tactics and strategies.
- They have staged letter writing campaigns, email campaigns, and other forms of lobbying.

## **NAVAJO-HOPI STRUGGLE TO PROTECT THE *BIG MOUNTAIN RESERVATION***

The Navajo have also filed several lawsuits concerning land use and water rights, claiming that Peabody has infringed upon Navajo rights to water on reservation land. Other lawsuits have addressed the Navajos' inability to perform religious ceremonies and other practices due to destruction of the land.

In 1996 a federal judge ordered the cancellation of Peabody's mining permit. However, the mine remains open as Peabody appeals.

**ENVIRONMENTAL JUSTICE**  
**CASE STUDY:**  
**DISPLACEMENT OF**  
**INDIGENOUS PEOPLE IN**  
***SARAWAK, MALAYSIA***

# DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA*

Construction of dams has always been a controversial issue. ❖ Dams have many benefits:

- They are used to store water and are able to make up for variations in the flow of the rivers, meeting the demands of water and energy more easily. ❖
- They generate electricity (hydropower). ❖ Hydropower provides about 20 percent of the world's electricity. ❖
- They supply water for agriculture, industries, homes, and they help to control flooding. ❖

# DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA*

To attain economic prosperity, the Sarawak government wants to make use of the state's abundant natural resources. Two of Sarawak's biggest exports are **oil and gas**, and **timber**.

Most of Sarawak's 48,000 sq. miles are covered by trees. ❖ Malaysia's reserves of oil and coal lie off-shore. ❖ Sarawak also has some of Malaysia's largest oil-palm plantations. ❖

# DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA*

It is believed that Bakun dam will generate revenue for the economy, making *Sarawak* the powerhouse of Malaysia. The dam would attract foreign investments with the building of an aluminum plant, pulp and paper plants, steel mills, high-tension and high-voltage wire industry, and the development of a tourist resort at the reservoir. ❖

Thus, the dam will ❖ generate employment and valuable spin-off industries for *Sarawak*, adding 3% to the state's annual growth, bringing the indigenous peoples ❖ into the mainstream of development ❖ through resettlement, and providing much needed infrastructure to a remote part of *Sarawak*.

# DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA*

In March 1995, the first of 4 Environmental Impact Assessments (EIA) was approved and work was started

However, it has been noted that the indigenous people have been consulted on a limited level concerning the planning of the dam. ❖ There was no public access to the important feasibility studies and no feedback was collected from the public on the Environmental Impact Assessment process. ❖ ❖ ❖

# DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA*

On the other hand, there are major environmental effects that come along with constructions of dams:

- The deposits of sediments behind the dam, which in turns affects the ecosystem's flora and fauna. ❖
- Dams change the pattern of the flow of rivers. ❖ Storing water in dams delays and reduces floods downstream, which may affect how native plants and animals reproduce and migrate.
- There are socio-economic factors to consider when a dam is built. ❖ What happens to people living in the surrounding areas?

# **DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA***

**The Bakun Dam, if successfully built, will flood an area of about 70,000 hectares. The dam includes a 205m high dam with 2,400 MW of generating capacity**

# DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA*

In order for the dam to be built, about 15 communities, consisting of 9,500 indigenous people have to be relocated.❖ The great majority of the populations are subsistence farmers practicing shifting cultivation.

They get their source of meat and protein from fishing and hunting. The jungle provides them with vegetables.❖

They will lose their land, ancient burial grounds and their traditional way of life.❖

There will also be thousands of people living downstream whose livelihood will be affected

# DISPLACEMENT OF INDIGENOUS PEOPLE SARAWAK, MALAYSIA

- The forest in the area is home to more than 100 species of fauna listed as **protected**.
- 170,000 acres of jungle will be cleared.
- 51% of the land of the reservoir area is *Native Customary Land*, which means that it is legally owned by the indigenous communities. However, have a NCR does not entitle the indigenous people to a land title or grant. The government also has the right to extinguish the rights on the land, for the purposes it deems fit.

# DISPLACEMENT OF INDIGENOUS PEOPLE *SARAWAK, MALAYSIA*

The indigenous communities oppose strongly to the project. ❖  
They formed a coalition of over 40 Malaysian NGOs. ❖ Many of the indigenous communities who are going to be displaced feel that monetary compensation will never make up for their losses. ❖

The Head of “Mothers Against Bakun”: “We are not anti development. Our tradition and livelihood are linked with the jungle and the land in Bakun. ❖ We just cannot be separated from it. ❖ We are not interested in the amount of compensation any party is willing to pay us. ❖ We just want our land and we want to preserve our culture”.

# DISPLACEMENT OF INDIGENOUS PEOPLE SARAWAK, MALAYSIA

## **SOLUTIONS ???**

News reports stated that the displaced indigenous people would get about US\$40 million for compensation. ❖ That is only about 1/10<sup>th</sup> of what the timber is worth. ❖

Given the number of indigenous people involved in this project, every person would get about **US\$8,000** for compensation. ❖ This figure is four times the *average per capita income* in Sarawak.

However, it has been claimed that this compensation is *not* sufficient to replace the sustainable livelihoods of the people and their way of life on their ancestral grounds.

***THANK YOU***

***mordechai@i  
dc.ac.il***