

Summary of the Use of Non-market Valuation Survey Results

I. Introduction of survey

This survey aimed to investigate the actual use of non-market valuation in policy decisions. It was sent to 55 directors of estuarine programs managed by both NOAA and EPA in the US. There were 36 responses from 34 programs. 33 programs were identified and one was unidentified.

Based on the survey, a majority of estuarine research programs haven't carried out any non-market valuation studies. Among 34 programs, only nine have done non-market valuation studies related to their estuaries.

II. Major findings

Why did they do non-market valuation?

- Primarily to focus on enhancing awareness of the environmental importance (8 responses).
- 3 respondents said that it was to assist with other environmental analysis tools.
- 2 responses intended to do environmental costing.
- Evaluating a project, trade-off of multiple projects and informing market-based conservation mechanisms got 1 response respectively.

What did they think about the influence of non-market valuation in policy decisions?

- 5 respondents said that non-market valuation was influential in policy decision making. They reported that it was persuasive to attract investments and other supports for ecosystem preservation and restoration.
- 2 respondents did not consider non-market valuation as influential, because it was not sophisticated enough to be promoted as routine in policy decision making.
- There are 2 programs that have not used valuation results. They expected them to help with regulation amendments and future funding.

What problems did they encounter using non-market values in policy decisions?

- 5 respondents reported problems and the main problem focuses on skepticism about non-market valuation techniques and estimates.

What is the future plan for non-market valuation?

- 3 respondents sought more non-market valuation in the future. Among them, two programs already have a plan to do comprehensive research concerned with non-market values of ecosystems.
- 2 respondents were not interested in more non-market valuation because they felt "non-market values of our coastal landscape are well-known among the public and government and there is no need to spend more time and money on conveying those values to the public or government."

- 4 respondents were hesitant to do more non-market valuation due to funding restrictions and skepticism.

Why have they not carried out non-market valuation?

- Financial restriction is the most prominent factor that has been hindering the carrying out of non-market valuation. Among 25 programs without non-market valuation, more than half of them (14) reported this reason.
- Other reasons that were reported include the information or data related to non-market valuation is not available (8); non-market valuation is not the priority to solve existing problems (7); the use of non-market valuation is not clear (7); non-market valuation is not complete enough to inform policy decisions (6); and there are no economists available to inform decision-makers (6).
- Surprisingly reliability of non-market valuation methodology that has been criticized and doubted was not a significant reason with only 1 response.

Does economics play an important role in policy decision-making?

- Almost 90% (30) of estuarine programs that responded don't have any staff with economics background.
- Half respondents said that economic analysis was not influential in policy decisions while half with the opposite answer.
- There is no significant connection between programs where staff with economics background are available and where economic analysis has played an influential role. Similarly, whether or not staff with economics background are available has no bearing on whether non-market valuation studies have been done, based on survey results. Among 4 programs with staff related to economics, only 2 reported economic analysis is important, but none of them have done non-market valuation.
- On the other hand, it is very clear that programs that have already done non-market valuation take economic analysis seriously in policy decisions. Among 17 programs where economic analysis has played an influential role, there are 7 programs that have done non-market valuation, which accounts for almost 80% of the 9 programs with non-market valuation.

What did they suggest to improve the use of non-market valuation?

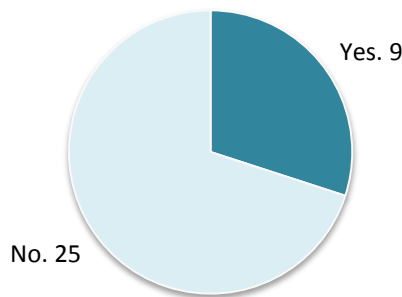
- Based on the rating of improvements suggested by the survey, Enhanced credibility and reliability of non-market valuation techniques and Clarifying the links between policy questions and non-market valuation got the highest rating.
- Developing less expensive methods to carry out non-market valuation studies, linking non-market values explicitly to different stakeholders/ user groups and expanding the range of ecosystem benefits/services that can be measured by non-market valuation got medium rating.
- More reports about how to use non-market estimates in policy decision making process, establishing more effective communication channels between economists and estuarine agencies and more support to increase the understanding of the range of non-market values and the array of valuation techniques available to estimate these values got relatively low rating.

- Although credibility and reliability of non-market valuation techniques were not reported as a significant reason why non-market valuation studies haven't been done, expectation of enhanced techniques turns out to be very strong.

III. Summary of responses

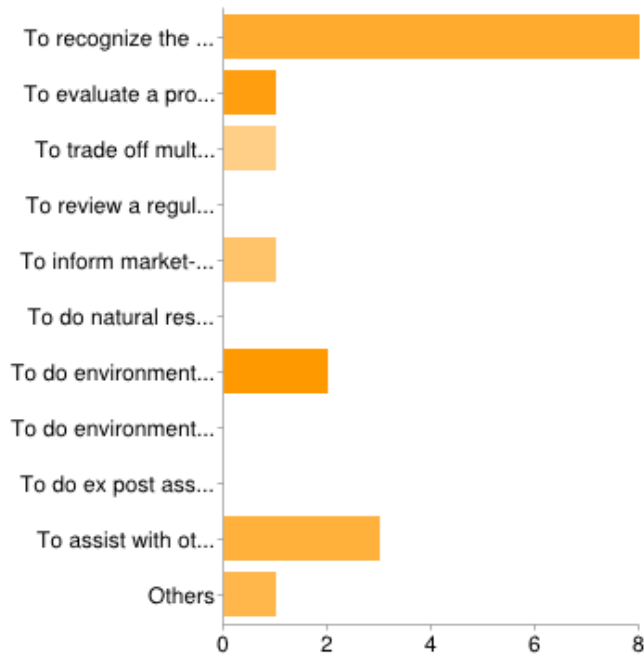
This survey was designed for agencies who have done non-market valuation and who have not done respectively. The following is the summary of responses from 34 programs.

Part1. Have you done non-market valuation studies for your estuary?



Part2. For people (9) who have done non-market valuation:

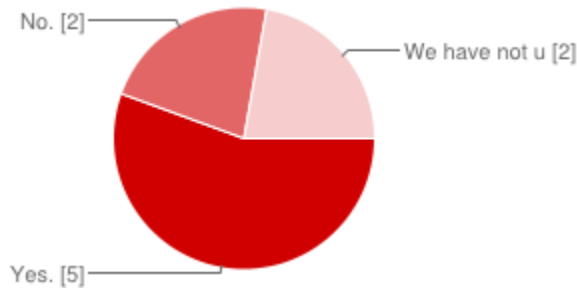
Q1. What was the purpose of doing the non-market valuation study?



Purpose	Response No.	Response
To recognize the importance of a given ecosystem or ecosystem service	8	“Grouping answers to question #1 into “yes” or “no” isn’t going to tell you much. In fact, it may be misleading. We have done some very limited work to assign non-market, which means we answer “yes”. There is a lot of territory that results in a “yes”.”
To evaluate a project (e.g. an investment project, a preservation or restoration project, etc.)	1	“To justify public investment in the watershed”
To trade off multiple projects	1	
To review a regulation related to estuarine management	0	
To inform market-based conservation mechanisms (e.g. payment for ecosystem services, user fees, conservation credits, tax breaks, etc.)	1	
To do natural resources damage assessment	0	
To do environmental costing (e.g. reflecting environmental cost in prices of ecosystem goods and services.)	2	
To do environmental accounting (e.g. natural capital accounting, green GDP accounting, etc.)	0	
To do ex post assessment of a project or regulation	0	
To assist with other environmental management tools	3	
To assess the effect of climate change	1	
Others	1	“To assess total economic value of ecosystem services based on best literature available.” “To evaluate the effect of the future land use plan on ecosystem services.” “To evaluate the effect of sea-level rise (positive and negative) on ecosystem services.”

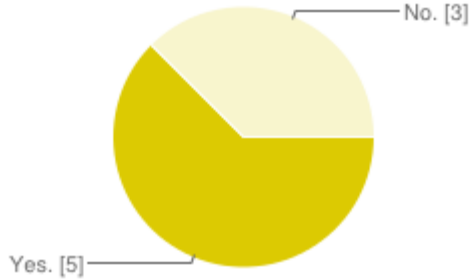


Q2. Do you think the results of non-market valuation influenced policy decisions?



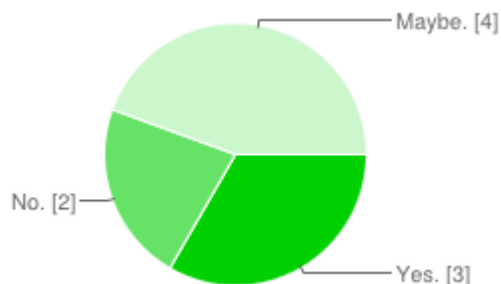
Response	Response No.	Detail
Yes	5	"We used ecosystem services valuation process to gain support for restoring our coastal landscape."
		"We shared the values with elected officials, who have and continue to invest in the watershed."
		"To promote eco-tourism as a contribution to local and state economy; to promote the necessity of protecting the estuary as a means of sustaining the fishery, which is a key cultural/heritage industry for our estuary."
		"Helped demonstrate that the benefits could out-weigh the costs"
		"Valuation of ecosystem services aided in making the case for increased resources for habitat preservation."
No	2	"While non-market valuations are interesting for discussion purposes. That approach has not been accepted as a basis for policy decisions. Existing policies are still focused on traditional valuation techniques."
		"I believe that non-market values continue to have, a significant impact on policy decisions in our region. However, that is not what you asked. You asked whether "results of non-market valuation" (the process of assigning non-market value) influenced policy decisions. It is a relatively new approach here and has not had a significant impact on policy yet."
We haven't used them	2	"The study is currently going through the process of acceptance. We expect to use it as a tool to influence land use plan amendments, environmental land acquisition and climate change adaptation planning."
		"In making the argument for future funding of projects to protect and restore the estuary."

Q3. Did you encounter problems using these non-market values in policy decision?



Response	Response No.	Detail
Yes	5	"Non-market values are criticized variously."
		"Existing permitting and mitigation policies established by natural resource regulatory agencies are still focused on in-kind/on-site mitigation."
		"Methods questioned, skepticism that non-market values could be evaluated"
		"Some decision-makers were skeptical of the methodology and were concerned that the study made sweeping assumptions to meet an agenda."
		"Data are not taken seriously. People doubt the results, or if they believe the results they still don't actually figure them into cost-benefits calculations (formal or informal)."
No	3	

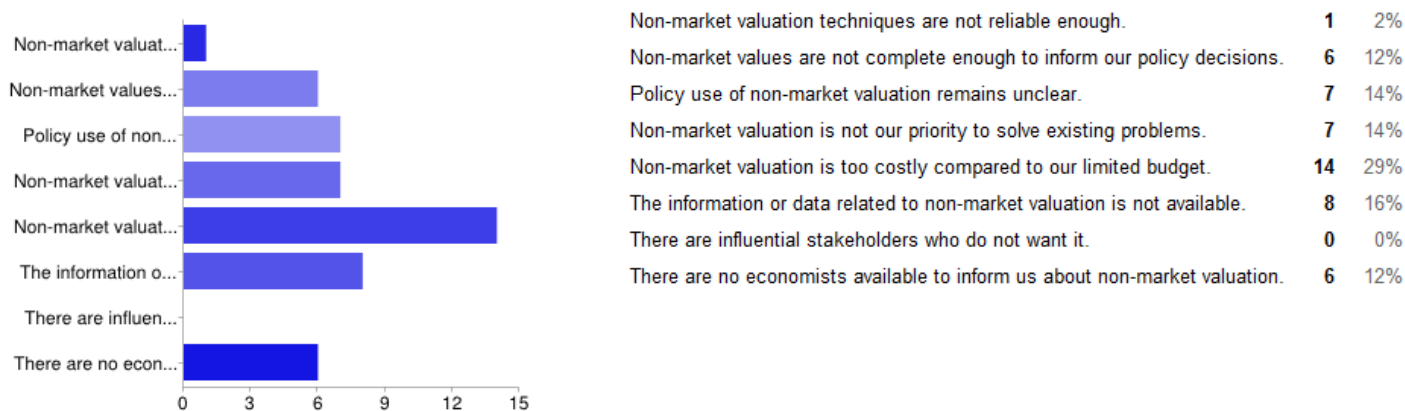
Q4. Are you planning to fund additional non-market valuation studies of your estuary?



Response	Response No.	Detail
Yes	3	"The Current study was based on a small area of our jurisdiction. We are seeking to expand the model/tool to the entire Gulf of Mexico."
		"We are currently preparing a comprehensive conservation management plan for our estuary. This plan for is based on the six things that people value most about living in coastal Alabama (Access, beaches, fish, heritage, resilience, water quality). Over the course of the next three years, we will undertake non-market valuation studies in these areas for use in educating the public/elected officials of the value of protecting these "values"."
		"No plan since dedicated funding is not available. We will encourage our graduate student affiliates to work in this field."
No	2	"We feel that the non-market values of our coastal landscape are well-known among the public and government and there is no need to spend more time and money on conveying those values to the public or government."
		"We will focus on working within existing policy guidelines rather than trying to change them."
Maybe	4	"Availability of funding"
		"The credibility and applicability of the results."
		"Trying to find the right study/valuation, one that will be meaningful to policy makers and funders."
		"Willingness to pay for it, people are reluctant, say things like " we already know its valuable, we don't need a study to tell us that""

Part3. For people (21) who have not done non-market valuation:

Q1. Why have you not carried out any non-market valuation studies for your estuary?



Other reasons are listed below.

"I make a distinction between using a variety of non-market (and quasi-market) valuation methods to understand sources of value -- which I find very useful -- and reliance on numerical outcomes (dollar "values"), which are less useful. Significant data limitations and technical barriers block robust estimation, especially in under-studies systems. Given technical limits, the contested nature of "valuation" numbers stemming from all but the most direct of indirect valuation processes (e.g. travel cost, hedonics), incomplete nature of estimation of value, and poor relationship of "value" to specific policy issues, costs don't look reasonable without a specific relevant policy context in which to apply the methods."

"Non-market studies would not be areas where I would prioritize expending funds from my program. We are more about projects on the ground than policy development."

"We do not have the expertise on staff to conduct our own non-market valuation study of our estuary. We have not budgeted for social science studies."

"We have economist available but they are "few and far between" and they don't have funding."

"We are in the process of doing some non-market valuation now."

"Before starting this survey it would be helpful to see how you are defining "non-market valuation." Based on my understanding of the terminology, none of the above responses apply. We would welcome work in this area if an opportunity arose for a qualified individual to conduct a study. In short, no one has approached us with an interest in doing this work and we have not actively sought funding for this purpose."

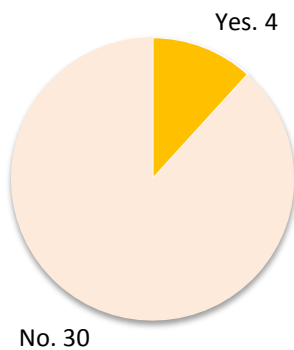
"We don't have the staff expertise to conduct this type of work, and we have not heard it as a priority need in our area. "

Such a study would be more likely if it were determined that the state coastal management program and natural resource agency felt such information was a priority. SINERR could serve as a pilot for such a study.

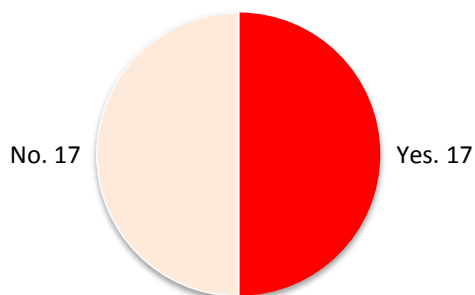
Locally relevant information and standardized methodologies for scientifically assessing ecological services such as ecosystem function and biodiversity are needed.

Part4. For all people surveyed:

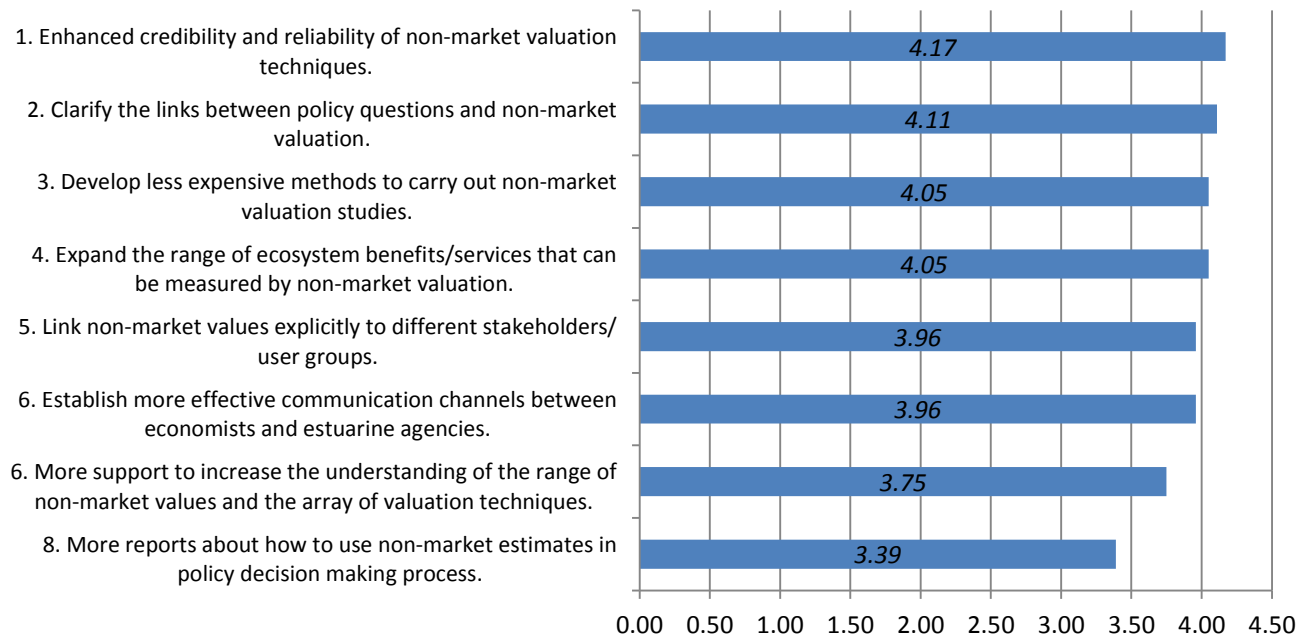
Q1. Are there any staff with economics background to advise whether/ how to do non-market valuation in your institution?



Q2. Has economic analysis been playing an influential role in your decision-making process?



Q3. How beneficial would the following items be to your estuarine management? (Rating using number 1-5. No.1 represents “not important at all”; No.5 represents “very important”.)



Other improvements about non-market valuation are as below.

“I have personally been involved with non-market valuation efforts in other contexts, so we have a robust technical understanding of methods. While I do not have time to stay up on recent relevant literature, key barriers stem from costs, technical weaknesses in methods, and lack of relevance to many policy decisions.”

“More access to economists doing environmental and ocean work”

“Much of the decision making here in SF bay is driven by long-standing policy and regulations. There was a recent study done here about the economic benefits of “greener” levee projects. But this is a very practical study.”

“Case studies of exactly how it has been used to solve specific problems”

“I remain unconvinced that non-market valuation is really helpful.”

“This is a difficult question for me to answer since we don’t have any management responsibility here at our reserve, and the management agencies that have a responsibility over these areas have not indicated that this is a need or concern. ”

Develop standardized methodologies for assessing and valuing ecological services such as ecosystem function and biodiversity at the local coastal decision-makers scale (city, county, state).

The following is the list of identified estuarine reserves that have taken the survey.

NOAA	EPA
South Slough, Oregon	Casco Bay Estuary Partnership
Mission-Aransas, Texas	Long Island Sound Study
Great Bay, New Hampshire	San Francisco Estuary Partnership
Waquoit Bay, Massachusetts	Narragansett Bay Estuary Program
Jacques Cousteau, New Jersey	Barataria-Terrebonne National Estuary Program
Chesapeake Bay, Virginia	Barnegat Bay Partnership
North Inlet-Winyah Bay, South Carolina	Charlotte Harbor National Estuary Program
ACE Basin, South Carolina	Coastal Bend Bays and Estuaries Program
Kachemak Bay, Alaska	Massachusetts Bays Program
Old Woman Creek, Ohio	Mobile Bay National Estuary Program
Hudson River, New York	Morro Bay National Estuary Program
Narragansett Bay, Rhode Island	Peconic Estuary Program
Weeks Bay, Alabama	Piscataqua Region Estuaries Partnership
North Carolina	Puget Sound Partnership
Sapelo Island, Georgia	Santa Monica Bay Restoration Commission
Guana Tolomato Matanzas, Florida	Tampa Bay Estuary Program
	Tillamook Estuaries Partnership