# Beringia: Visions of an International Park in Difficult Times

by Donald Callaway

Photograph courtesy of John Tichotsky

**In Chukotka, survival of many families depends on the harvest of wildlife resources, especially gray whales.**

**Left: The Soviet policy of abandoning "settlements without prospects," has led to the abandonment of many traditional communities. Migration by families from these settlements to larger communities has resulted in increased rates of social problems and has had serious detrimental consequences for the organization of traditional subsistence activities.**

Photograph courtesy of Don Callaway

## Introduction

In 1990 Presidents Gorbachev and Bush signed an agreement to initiate the establishment of an international park in the Bering Sea region to recognize the common cultural and natural heritage of Beringia. This international park would combine units of the U.S. national park system in Alaska, specifically Bering Land Bridge National Preserve, Cape Krusenstern National Monument, Noatak National Preserve, and Kobuk Valley National Park with Russian units that have yet to be designated.

The U.S. National Park Service's Shared Beringian Heritage Program was established shortly after the agreement was signed. The program encourages the participation of local residents in the preservation and understanding of natural resources and protected lands, as "well as working to sustain the cultural vitality of Native peoples in the Central Beringia region" *(NPS n.d.)*.

Since its inception, the Shared Beringian Heritage Program has funded projects that: *…help link protected lands and the peoples of both sides of the Bering Strait in cultural exchanges, and in exchanges of scientific capabilities and findings, conservation ethics and philosophies, and natural and cultural resource management technologies* (NPS n.d.).

One such project was the "Beringia: Chukotka Subsistence Harvest Assessment Project" (BCSHAP), which was a cooperative effort funded by the National Park Service, the North Slope Borough (NSB), and the office of the Governor of Chukotka, Roman Abramovitch. This project documented the current social, economic, and traditional subsistence activities of three Chukotkan communities, Lavrentiya, Lorino, and Sireniki, and used this data to prepare a needs assessment report that was submitted to the International Whaling Commission (IWC).

This project was not simply an academic exercise. The IWC regulates all whale harvests, and its approval of a quota is essential for indigenous whaling communities in Alaska and critical to the stability of indigenous communities in Chukotka. Economic conditions had deteriorated so badly in Chukotka that the survival of many families depended on the harvest of wildlife resources, especially gray whales and other marine mammals. The technical needs assessment paper produced by this Beringian research was presented to the IWC in Shimonoseki, Japan in 2001. Based on the results of this assessment, the IWC granted the communities of Chukotka a quota of 120 gray whales per year to continue their indigenous subsistence activities.

## Historic Background

For several hundred years the indigenous communities on both sides of the Bering Strait have been linked through a number of economic and social institutions. Trade, social contacts, and warfare have been documented by numerous sources including the records of the Jesup expedition, Chukchi and Eskimo oral histories, and the materials and artifacts collected on both sides of the strait *(Gurvich 1988)*. Tobacco, beads, and iron were traded from Siberia to Alaska where they were exchanged for furs, jade, and ivory.

During more recent periods, the interchange and contact has been more intimate, such as between the contemporary Siberian Yupik communities of Gambell (Alaska) and New Chaplino (Chukotka). Separated by only 64 kilometers of water, these two communities had been linked for centuries through intermarriage (sharing the same clan system), trade, and ceremo-

Photograph courtesy of Don Callaway

**While traditional forms of harvest and distribution faced severe dislocations under the management of state farms, certain skills such as skin boat building were maintained. *(Sireniki 1992)***

nial exchanges. In the last 70 years, these two communities are representative of the dramatic and traumatic social and political changes that have swept through the Bering Straits region *(Callaway and Pilyasov 1993)*. The Chukotka side has seen substantial changes as indigenous systems of reindeer herding and marine mammal hunting have been collectivized, turned into state farms, and finally all but fiscally abandoned after the collapse of the Soviet system.

Since the 1930s these two small Native communities have encountered enormous changes, changes often engendered by the social and economic policies of the nation states in which they are embedded. The abandonment of small Native communities in Chukotka under the Soviet policy of "settlements without prospects," the forced resettlement of Chaplino to New Chaplino, and the reorganization of cooperatives into state farms have all had serious detrimental consequences for the organization of traditional subsistence activities in the small communities within this region.

Across the strait, Gambell, like many indigenous communities in the Alaska arctic, has very little economic infrastructure, high unemployment, increased social problems, and decreasing financial support from the state and federal sector. In contrast to Chukotka and despite some constraints caused by state and federal management of natural resources, much of rural Alaska has managed to maintain high levels of subsistence use. On St. Lawrence Island and in the Yukon-Kuskokwim delta, indigenous languages are spoken by young people (although this is less true in Inupiaq-speaking communities). On St. Lawrence Island important cultural features such as sharing, bride service, patri-clans, and ivory carving have been maintained while these same institutions were severely threatened in most Chukotkan communities, at least until the late 1990s.

For Chukotka the most dramatic short terms impacts came during the period of the Soviet state farms (circa 1975 - to about 1995). Central Russians and others, drawn by the prospect of high wages (regular salaries augmented by cost of living adjustments) and available housing, became the administrators of the state farms and reorganized existing marine mammal hunting practices. A factory boat that delivered whales to the communities replaced traditional whaling crews. Walrus crews formerly organized along kinship lines were now replaced by "brigades" headed by European Russians. Access to the means of production, such as boats and guns, was severely restricted by the concerns and policies of the Border Guard.

Traditional forms of harvest and distribution faced severe dislocations as the economic basis of communities were reorganized—reindeer herding became a commodity enterprise; marine mammal products were not only used for nutrition, but also as the major food supply to the fox farms; and "cost free" sharing of wildlife resources, resources now "owned" by the state farm, was prohibited although this prohibition was often ignored.

Photograph courtesy of John Tichotsky

**Traditional ivory carving was sustained in only a few Chukotka communities, such as Uelen, but is now experiencing a resurgence.**

Photograph courtesy of John Tichotsky

**One major consequence of the collapse of the Chukotka economy in last 10-15 years has been the emigration of European Russians and the remarkable increase in subsistence activities.**

During the last ten years, the indigenous communities of the Chukotka Peninsula have experienced another round of tremendous social and economic changes as a result of the collapse of the Soviet Union. Prior to this collapse, the central government provided substantial support to the Chukotka communities through subsidies and the centralized purchase and delivery of equipment, supplies, food, and fuel. This government support was provided primarily through the state farm system. Between 1989 and 1995, government support diminished to a fraction of its previous level, and the state farm system collapsed.

Few regions in the world have experi-

enced such complete economic collapse. Most enterprises and jobs created under the Soviet system disappeared. People who were fortunate enough to keep a job were often unpaid for months, or even years. Two major local industries, fox farming and reindeer herding, were decimated. Local production of milk and chickens, once a significant activity in the larger Chukotka settlements, disappeared. In addition, most government services, including essential services like power generation, health, and education are now being run on a survival basis.

One major consequence of the collapse of the Chukotka economy in last 10-15 years has been the emigration of European Russians and the remarkable increase in subsistence activities. At the end of the 1980s, subsistence activities provided about a quarter of the food products for rural villages. Today, subsistence activities provide over one-half of all food consumed and the bulk of protein in an individual's diet. In 1999, flour, tea, tobacco, alcohol, and sugar were the only western products received by the smaller villages in the Chukotka region.

Recently indigenous communities have begun the difficult process of reestablishing more traditional forms of subsistence harvesting. Small whaling boats, prohibited between 1972 and 1990, now harvest gray and bowhead whales. And while twentieth century technology in the form of boats, motors, and guns has been adopted, many of the repressed cultural traditions such as sharing, status of hunters, traditional carving, and respect for elders are reemerging and showing increased prominence.

## Beringia: Chukotka Subsistence Harvest Assessment Project

The three Chukotka communities selected, Lavrentiya, Lorino, and Sireniki, were thought to be representative of the diversity extant within the region as a whole. Although there are significant differences among them, these three communities are characterized by dependence on wildlife resources, the reemergence of traditional practices and values, involvement in the wage and service sector, and diverse ethnic makeup. In addition they had all been differentially impacted by the demise of the state farms.

These three study communities have very different profiles with respect to population size, ethnic composition, and economic organization. Lavrentiya has a population of slightly fewer than 1,300 people, Lorino is slightly larger near 1,500 and Sireniki is the smallest with about 550 people.

All three communities have been characterized by selective emigration in the last five years. As the economic circumstances and living conditions have deteriorated, many Central Russian émigrés, initially drawn to the area by housing and wage incentives, have repatriated to their Republics of origin. Lavrentiya with a substantial airport has acted as a regional transportation and service hub. It is the only community to sustain a substantial Russian ethnic presence (nearly a third of the population) although only about two-thirds of these respondents consider themselves to be permanent residents. In contrast, nearly all the Russian residents of Lorino and Sireniki consider themselves to be permanent members of the community

## Survey Research

The Chukotka Subsistence Harvest Assessment Project conducted 400 survey research interviews in the study communities using a formal questionnaire. The questionnaire gathered detailed information about household composition, participation in subsistence activities, harvest assessments of every major species, the use of western foods, food costs, individual and household

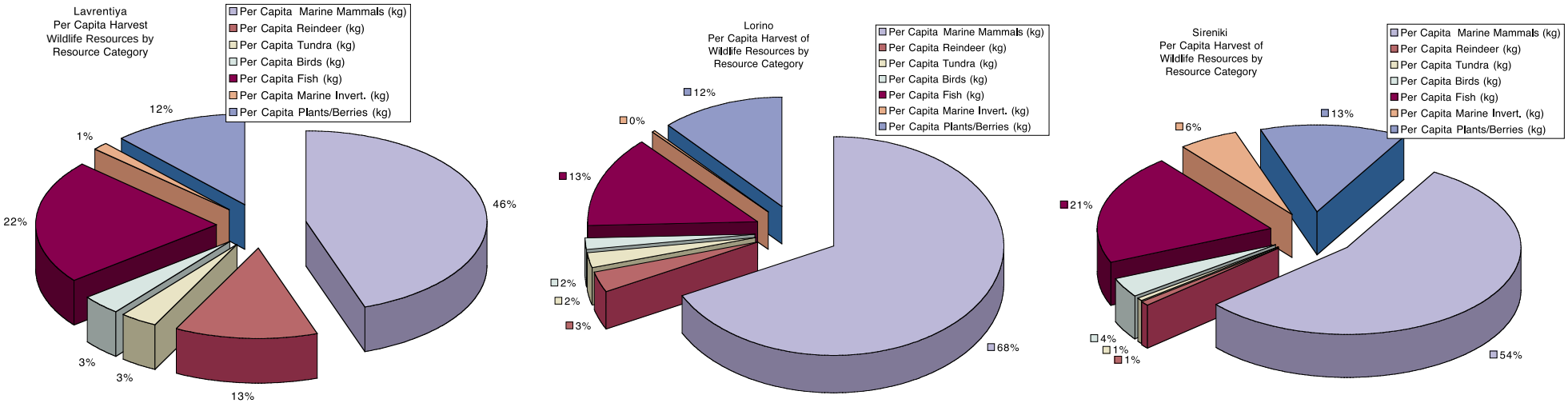


**Chart 1. Comparison of three Chukotka communtites: per capita harvest by resource type.**

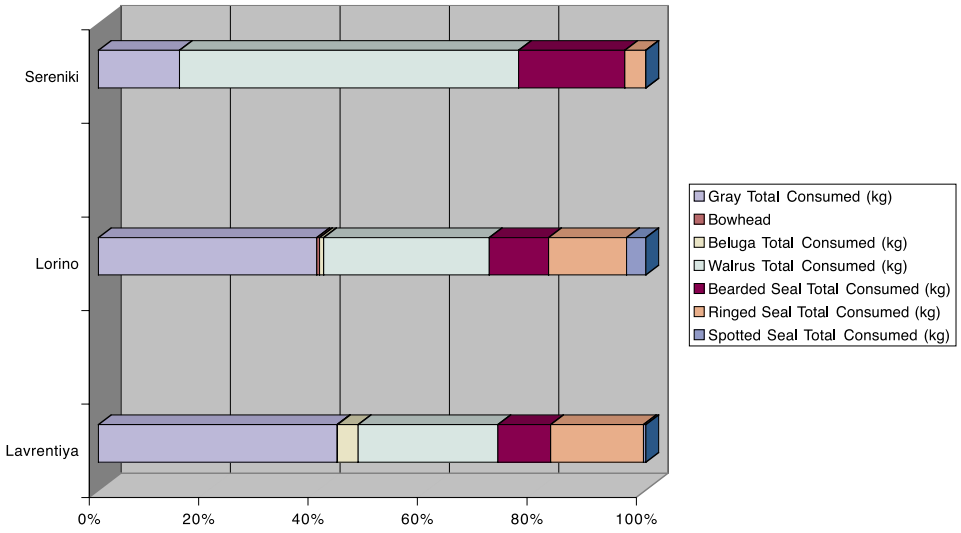


**Chart 2. Chukotka: proportion of marine mammals harvested by species.**

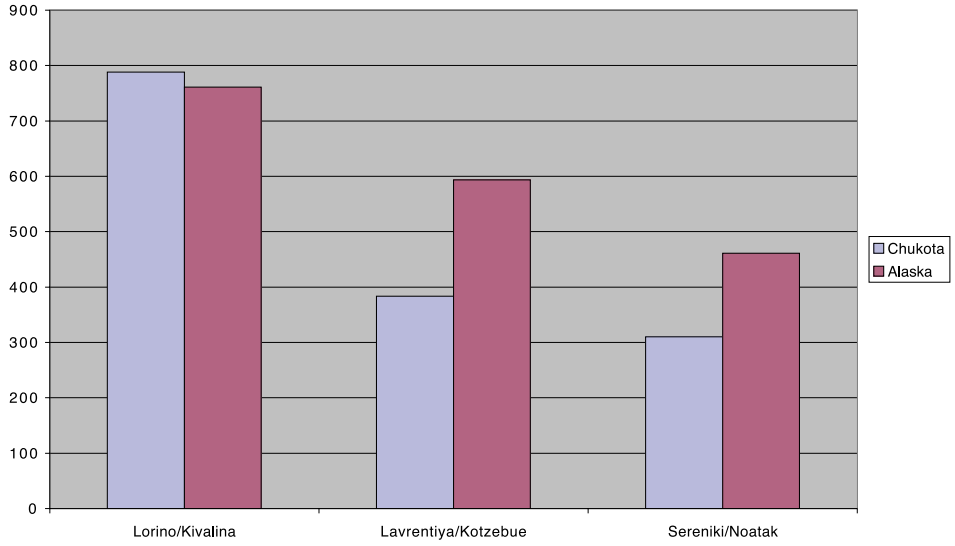


**Chart 3. Comparison: Chukotka/NANA Region**
**Per Capita Consumption of Wildlife Resources in pounds.**

income from all sources, food preferences, training and learning about subsistence activities, and estimates of the household's dependence on wildlife resources.

## Economic Importance of Wildlife Resources in Traditional Communities

There is certainly no doubt that the harvest of wildlife resources is critical to the diet of indigenous communities on both sides of the Bering Strait. Two simple measures can indicate the level of this importance: per capita consumption of wildlife products and the replacement cost at market value of such resources.

However, one should not be mislead that the economic and dietary impact of subsistence activities is necessarily the most important outcome of these endeavors. Subsistence resources and the activities associated with the harvest of these resources define and establish the sense of family and community. The distribution of these resources establishes and promotes the most basic ethical values in Native and rural culture—generosity, respect for the knowledge and guidance of elders, self-esteem for the successful harvest of a resource, and family and public appreciation in the distribution of the harvest. No other set of activities provides a similar moral foundation for continuity between generations.

## Per Capita Consumption of Wildlife Resources

The results confirmed the dependence on marine mammals of the Chukotka study communities. About half to two-thirds of the wildlife resources in the diet of these communities comes from marine mammals. For Lavrentiya, 46% of the per capita harvest of wildlife resources was marine mammals, while Lorino was 68% and Sireniki was 54% *(Chart 1)*. *Chart 2* provides a breakdown by species of community dependence on marine mammals. With the exception of Sireniki, which has limited access to whales but is heavily dependent on walrus, about 40% of all marine mammal consumption comes from gray whales.

*Chart 3* indicates the per capita harvest levels of wildlife products for each community. Lorino clearly consumes considerable amounts of wildlife resources, nearly 788 pounds per year (a typical urban American will consume about 220 pounds of meat). This consumption of subsistence resources parallels similar behaviors on the Alaska side of the Bering Strait. Kotzebue (Alaska) is twice the size of Lavrentiya yet both have significant non-Native populations and are regional transportation and service hubs. Lorino is nearly four times the size of the Alaska village of Kivalina, yet both are primarily indigenous communities with strong dependence on marine mammal products. Sireniki and Noatak (Alaska) are about the same size, and both are primarily Native; however, Noatak obtains its primary subsistence diet from land mammals and fish while Sireniki relies primarily on marine mammals.

## Household Income

The three Russian study communities in the CSHAP research project demonstrate considerable variance in their circumstances. Lavrentiya has about 60% more income than the other two communities

and 80% of the community's income comes from wage sources. Lorino, with considerably less income, receives about two-thirds of its household income from wage sources. At most risk is Sireniki where nearly 60% of income is derived from welfare, pensions, or similar forms of transfer payments.

Many households and communities in the Alaska Bering Strait region depend heavily on unearned income and seasonal wage work. In general these households have lower incomes and their fortunes have been declining in an era of legislative program cuts. In addition these communities can rarely sustain their low purchasing power under circumstances of even modest inflation.

There is some risk in comparing the economic circumstances of Chukotka communities with those of their counterparts in Alaska. A key difference is that the organization for the harvest and distribution of wildlife resources in Alaska resides with the household or extended family *(Magdanz et al. 2002)*. Although the products of subsistence activities are often widely shared throughout the community, the capital for engaging in subsistence activities is normally borne by the family. Thus, boats, motors, rifles, gasoline, bullets, and all the other expenses are purchased by a household and are used by that household or by close extended family members. In Chukotka few individual households or even extended families have the financial means to support such activities.

With respect to income sources, Bering Strait Alaska communities mirror that of Lavrentiya and Lorino, with about 70% of their income derived from wage sources.

It should be noted that on neither side of the Bering Strait do communities enjoy robust and diversified economies. Most sources of wage income are due to employment in the government or service sector, while most of the construction is linked to federal, state, or regional programs. Neither side, because of a variety of factors including transportation costs, has a viable manufacturing sector. Similar analysis of other economic sectors indicate that all these rural communities on each side of the strait are extremely dependent on transfer payments and programs from federal or "state" (oblast) entities.

Ten years ago most rural indigenous households in Alaska had 15 to 20 times more income than their Chukotka neighbors. However, rural indigenous Alaskans have five to six times less income than non-Native urban dwellers in Alaska whose per capita income at this time is about $26,000. Thus, even if one were to take into account such issues as purchasing power, differences in the provision of health services (now sporadic in Chukotka), and subsidized housing, most observers would agree that the economic conditions of indigenous Chukotka households are considerably more precarious than their counterparts in rural Alaska.

| Per Capita Income - 1990 Census* | Kotzebue | Kivalina | Noatak |
|---|---|---|---|
| | $13,906 | $4968 | $7089 |
| **Per Capita Income - 2000 CSHAP** | **Lavrentiya** | **Lorino** | **Sireniki** |
| | $892 | $345 | $357 |

**Table 1: Three Northwest Alaska Communities and Three Chukotka Communities.**
* The latest census for which per capita income is available.

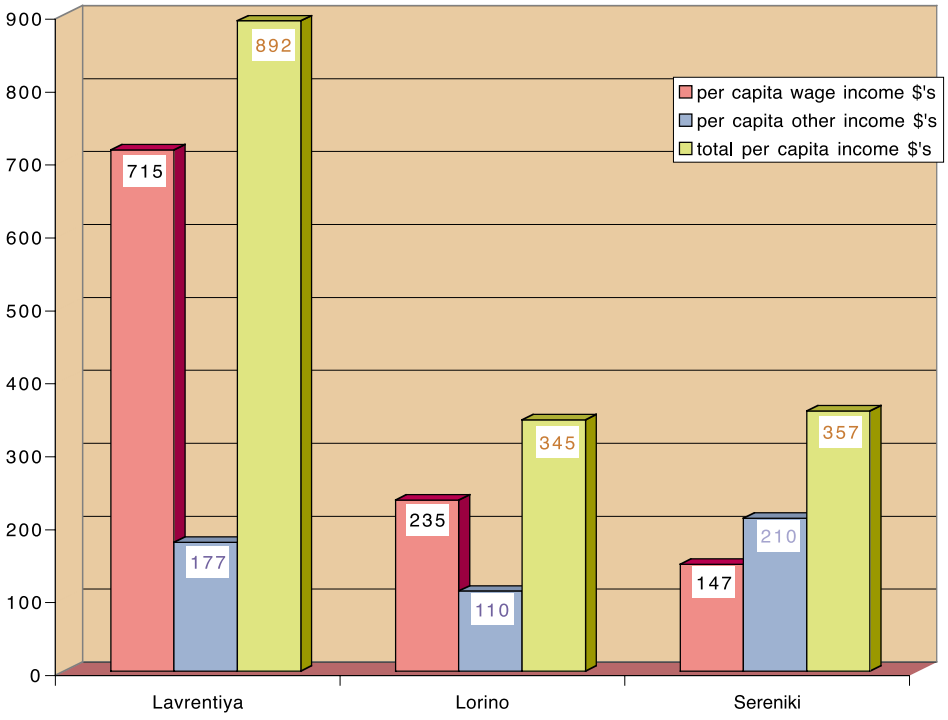


**Chart 4. Per capita income in dollars, three Chukotkan communities.**

## Food and Replacement Costs

### Chukotka

The critical nature of modest per capita income is underscored in an examination of household expenditures for food. Of most concern is Sireniki where nearly every available ruble is spent on food. Lorino, despite considerable consumption of wildlife resources, still spends over 60% of its disposable income on food. Finally, Lavrentiya with the highest per capita income spends over half of its total income on food, much of it western foods. Western foods, such as canned goods, bulk grains, potatoes, or a variety of other processed items are usually imported from central Russia.

### Alaska

Northwest Alaska communities are substantially dependent on wildlife resources. Statistical data indicate that rural

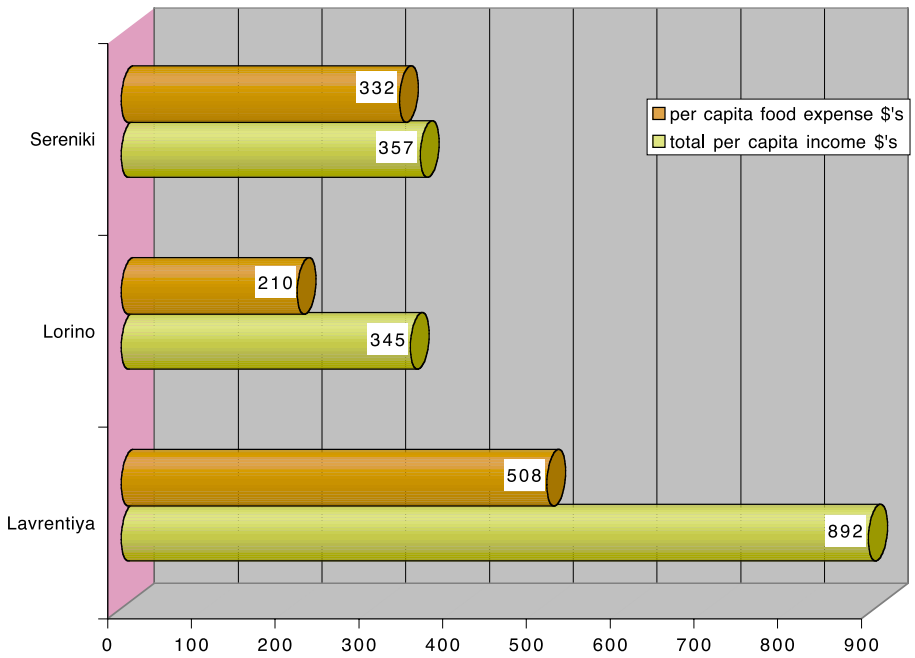


Chart 5. Per capita income and food costs in dollars.

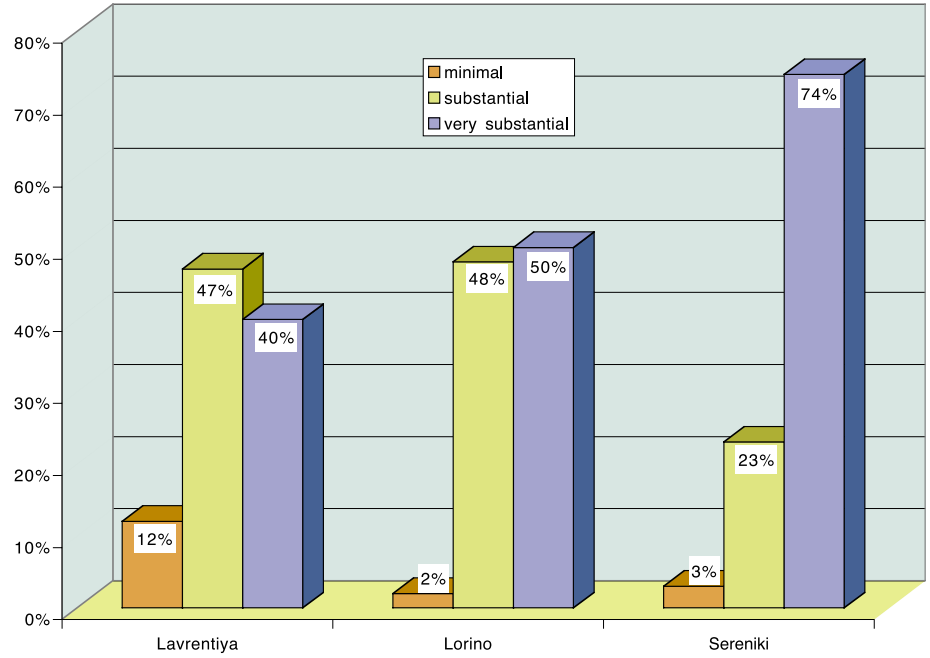


Chart 6. What role has humanitarian aid played in household diets?

indigenous people, when compared to other Alaskans, have very low incomes and a high dependence on unearned income. What would life be like for rural Alaska residents without subsistence resources? From a strictly economic standpoint the harvest of wildlife resources is crucial for the survival of rural Alaska households.

Most rural northwest Alaska communities are accessible only by air, although some commodities such as fuel oil and construction materials are brought in by barge. Bulk items such as food are extremely expensive to transport. For example, if a family of four (with elementary age school children) spends $93.22 for a market basket of food in Anchorage, then this same market basket will cost $217.96 for a similar family in Stebbens. Thus, while Anchorage food costs are about 25% greater than most cities in the western U.S., the rural communities of northwest Alaska have food costs more than twice that of Anchorage.

For the Arctic region (which includes the Bering Strait region), the Alaska Department of Fish and Game (ADF&G) estimates an annual harvest of 10.5 million pounds of wildlife products per year. ADF&G also points out that attaching a dollar value to subsistence uses is difficult, as subsistence products generally do not circulate in markets. However, if families did not have subsistence foods, substitutes would have to be imported and purchased.

If one assumes a replacement expense of $3-5 per pound, the simple replacement costs of the wild food harvests in the Arctic region would be $31.5 million to $52 million.

| | Kotzebue | Kivalina | Noatak |
|---|---|---|---|
| Per Capita Income - 1990 Census | $13,906 | $4,968 | $7,089 |
| Replacement Cost $3/lb. | $1,779 | $2,283 | $1,383 |
| Replacement Cost $5/lb. | $2,965 | $3,805 | $2,305 |

Table 2. Replacement Cost of Subsistence Products at $3 and $5 per pound.

Table 2 puts this into context. With per capita incomes ranging from $5,000 to $14,000, the total replacement cost of wildlife resources in the three communities presented in this comparison range from 13% to 77% of the total income for that community.

It is important to realize that none of the Chukotka communities has the income to replace subsistence resources and that many of the northwest Alaska communities simply could not function if they were required to import all their food. As the analysis indicates, even the relatively affluent (within the region) community of Lavrentiya lacks the financial resources to purchase food to substitute for wildlife resources. And for a community like

Sireniki, which currently spends almost all of its available income on food, the situation would be disastrous. In fact, Sireniki is on the edge of survival and copes by using a substantial amount of humanitarian aid.

## Discussion

One might be concerned that under these trying economic circumstances some resource populations, especially marine mammals, may be exploited beyond the habitat's carrying capacity. A number of factors mitigate this concern.

First, the former state farm system did treat natural resources as commodities, resources to be exploited for their economic return. Marine mammals were hunted factory style by "killer" ships to provide feed for fox farms. Meat and other products designated for human consumption were regulated by market values established by the state. However, the whole structure of this economic system had been dictated by the central government in Moscow and had no real support within the region. In the absence of the centralized "command" economy, the state farm system that supported fox farms and factory ships has disappeared.

Secondly, the commodity view of natural resources is gradually being replaced with a more traditional indigenous orientation. This traditional view emphasizes the reciprocal relationship between hunters and hunted. Traditional values also stress the importance of sharing resources, a non-commercial distribution system *(Callaway n.d.)*. Commercial markets, if there is a profit still to be made, know no constraints. In contrast, traditional values cap the harvest level when a community's needs have been met.* Thus marine mammal hunting with modern technology continues, but the values that these technologies serve have changed.

In addition, the Chukotka Marine Mammal Hunters Association has worked closely with the International Whaling Commission and its technical committees, the North Slope Borough, and the Alaska Eskimo Whaling Commission to identify local nutritional needs and to set sustainable harvest quotas for gray and bowhead whales for the small human populations in the Chukotka region.

Photograph courtesy of John Tichotsky

**North Pacific walrus may be at near peak levels, but are rarely harvested for commodity purposes.**

In conclusion, it is important to realize that the absence of formal protected areas is not an absence of resource management. Indigenous management regimes are often complex, but one ethic underlies them all —one can not take more animals than one can use, even if an abundance presents itself. The injunction against waste supersedes any other mandate. In the interim, as the Beringia vision unfolds, the resources will be respected.

**Note that marine mammal products such as walrus ivory are still carved in some communities (e.g., Uelen). Traditionally these products were traded but they are now for sale. Demand for these products is limited, however, because the U.S. Marine Mammal Protection Act makes the sale of these Russian products illegal in the U.S. In contrast, indigenous Alaska artists are permitted to sell their carved walrus ivory.*


## Acknowledgments

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