An epidemiological survey was conducted on the vitamin A status of the fishing community of North East India. Plasma vitamin A concentration of the women folk revealed very low levels when compared with those for males and children. Out of a total of 800 samples (male=180, female=300, Children=400), it was observed that 95 percent of women suffer from various grades of vitamin A deficiency, while the men and children have an almost significantly high amount of plasma vitamin A concentration, showing no vitamin A deficiency. There are 10 percent, (n=40) children having some other problems (such as gastrointestinal problems, helminthes infection, malaria infection etc.) which were not included in the present study. The study covers a wide variety of indexes including the economic status, literacy level, amount of fish eaten per day, consumption of other pro-vitamin A carotenoid containing food, age, pregnancy etc. in the family.

A major portion (90 percent) of fish and other pro-vitamin A carotenoid containing food items are consumed by the male members and the children. On an average daily basis, a family of fisher-folk with children retains approximately 100g of fish/head from their fishing production. However this amount is consumed by the children and the male member/s of the family. The status does not change among the pregnant women who are in different stages of pregnancy. Married women above 50 years suffer from greater vitamin A deficiency than the younger ones. A vitamin A fortification programme was conducted by giving 100g. of boiled Amblypharyngobon mola for 15 days. This helped to elevate the amount of vitamin A to normal levels.

This study has revealed a gender biased micronutrient distribution or management problem, whereby married women of the community are deprived of both fish and pro-vitamin A status carotenoids sufficiently in their daily diet.