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Carbon incentive for physical activity

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Carbon Incentive for Human Energy : Incentive for physical activity like yoga for normalisation of food consumption.

ABSTRACT

People become obese for various reasons including loss of self control over consumption. Practice of yoga reinforces basic ability of self control over food consumption. In this regard, the paper analyses the health economic cost of weight loss treatments. It is observed that the health economic cost of treatment could be reduced for the savings in food consumption achieved. The paper also seeks to extend the same benefit to yoga practice as the practice reduces food consumption and slows down metabolism. Recognising yoga as clean practice and evaluating yoga service for reducing/optimizing food consumption may promote healthy practices and may lead to completeness in conserving all forms of energy consumption, i.e. mechanical energy and food energy. Further research is required to measure the benefits of yoga for creation of appropriate incentive structure.

Background

One of the striking differences between the roads in India and the roads in the United Kingdom is that there are more people on Indian roads while there are more cars on the UK ones.

At individual level, there are two things that consume energy on the road - first one is automobile and the second is human beings. We have identified some of clean technologies for automobiles and for factories in manufacturing sector, and this an effort to bring out services sector activities that reduces food consumption i.e, clean technology for Human beings.

Food is a basic requirement for all human beings, and recognising and promoting a clean technology would mean having reasonable consumption for all. In cases where there is excessive consumption people become overweight/obese(a Non communicable disease(NCD)). The problem assumes significance because the large population in developing countries like India that is expected increase further is threatening the food security.

Weight loss treatments

Excessive consumption arises due to various reasons including loss of self control on food consumption. Charities for Health & obesity, government and various other institutions in health help the affected. There are remedies and they generally seem to be a task for the affected.

A Weight management centre reduces body weight and also helps an individual to manage food consumption. The centre might be eligible for carbon credits for reducing food consumption. For example, some of the weight loss treatments achieve results by prescribing reduced calorie intake for prevention of fat accumulation. From the day of the treatment the calorie consumption is around 600 k calories per day to 1600 k calories¹. During the Treatment period, there is carbon savings between 1950 k cal to 950 k cal per person per day (assuming 2550 k cal as minimum prescribed for males in the UK). A carbon incentive for the savings achieved may reduce **health economic cost** of treatments (Additional cost, which is around A\$9.76 to A\$7.30 for a kilogram of weight loss)¹, and provide a basis to recognise carbon savings for food energy.

Regulating consumption

The weight loss treatment prescriptions are helpful in regularising the abnormal consumption to maintain healthy weight, which changes from time to time. In the long run, the person has to regain self control over consumption. Patients, generally aware of the difficulties of being obese, also consume food as prescribed to maintain healthy weight.

Self regulation of consumption

Traditional practices like Yoga (A practice that involves disciplining the mind and body through exercises and meditation²) are helpful in reinforcing the basic human capabilities including self control over food consumption. Yoga sutras, text for yoga practice, reads that "*by self control on the pit of the throat one subdues hunger and thirst 3.30*" (Part 3 line 30). Yoga practitioners are taught that this is only a sign of good practice and not an end.

"It is observed that, some yoga postures, besides expending calories and mobilizing bone and soft tissue structures, are thought to stimulate the thyroid gland and reduce fat accumulation in specific areas of the human body"². Yoga can be an answer for the stimulants in the packed foods and for the obesity problem by cultivating reasonable consumption in individuals. Further studies have established that long term practice of yoga slows down the rate of metabolism with the corresponding effect on food consumption³.

Behavioural change programme in developed and developing countries

Developed countries are trying to implement behavioural change programmes like Points 4 life (based on loyalty points of the retail outlets in the UK) to promote physical activity in the society. Weighted evaluation for the above practices should be considered while fixing points for each physical activity. Weight loss program can be classified as clean development mechanism (CDM) and as a market force to counter products with high stimulants. The profit from the loyalty to food and to stimulants, and the loyalty points (For example Tesco retail shop club card points in the UK) can also be channelised to weight loss treatments and to traditional practices like yoga to maintain health just as a soldier's loyalty improves the security of the society.

Developing countries like India are still modernising & adopting the consumption patterns of the west, and so are the Government's preparedness to analyze and implement health measures. Developing countries are at different stages of consumption, resource and disease cycle. It will be expensive for developing countries to adopt consumption pattern and then import western medicinal practices including yoga. Instead they can introduce Yoga and physical activity programmes. Carbon markets can fill this gap where livelihood is the main focus.

Intense practitioners of Yoga are called Yogis and one of the characteristics of yogis is that they consume food only once a day. A Person who consumes food twice a day generally is referred to as bhogi. A structured yoga practice may reduce food consumption from three to twice a day. Assuming that normal consumption is three meals per day i.e breakfast, lunch and dinner, in sum, the reduction in food consumption would be one meal a day in case of moderate practice and two meals a day in case of intense practice. A carbon incentive could fund the above practice in India and in other countries, and save tonnes of food & water to relieve the stress on agricultural production.

Embedding best practices in the educational curriculum.

Students in Indian colleges, normally consume three meals a day. A carbon incentive could fund the above practice which could also improve the ethics, life skills and the quality of the education, a problem which forums like World Economic Forum deliberate in this weak global economic situation. Applying this to other sections of population may increase food security and stop NCD.

There are efforts to integrate sustainability practices in the education curriculum by AASHE.org for North America. Their efforts have resulted in Presidents' of college and universities of America (<http://www.presidentsclimatecommitment.org>) now having action plans for the sustainable practices within college campus. Current action plans focus on reducing consumption of mechanical energy or fossil fuels. Having a plan for Incentive and practice of the physical activity would bring completeness.

In the other sectors, This is happening in bits for example United Nations Organisation has called for a global funds to fight NCD. Elsewhere there is soda tax or fat tax⁴ on the stimulants while the fat tax is being criticised for being vague . Recognising the carbon savings and the best practice for self control on food consumption would mean a benchmark for allocation of resources like global funds for NCD and for allocation of points under behavioural change program like loyalty points scheme. Further research into economic cost of each stimulant and each treatment may answer the criticism for vague element in the charging of fat tax.

Conclusion

In Behavioural change programmes like Points 4 life, Weighted evaluation of above should be considered while fixing the amount of points for each physical activity.

In countries like India,

- a. Carbon savings should be recognised &rewarded.
- b. The effect of best practices should be considered & encouraged while allocating Global funds for Non communicable Diseases by United Nations Organisation (FAO). At the moment, the above factor is not considered in allocation of Global funds to fight Non communicable disease.
- c. Efforts should be made to bring new tax similar to that of fat/soda tax which in the long run could fund cure for non-communicable diseases locally. or

Carbon incentive plus Social value considering all the above factors should be computed for the purpose of determining correct incentive for practice.

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