

Agenda for environmental innovations (slight 1)

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Agenda for environmental innovations is discussed (**slight 2**). It means that public concerns that are usually called environmental problems, are addressed in a non-traditional way. It is argued that we should view the concerns from different angles. The first angle focuses on ongoing concerns. These are environmental problems that are acknowledged in the past. Second perspective covers new candidates on environmental agendas. The third point of view looks into the social consequences of the problems. It is argued that environmental innovations can make environmental qualities more available to public, which means that the qualities are maintained. The conference is an excellent forum for the debate, because the region of North Sea is the cradle of modern views on the social relations with physical surroundings.

The modern environmental view is primarily utilitarian. This view largely determines the way we look at environmental problems and look for solutions. Various demands are posed with respect to physical surroundings such as healthy work and lifetime, safe and pleasant neighbourhoods, useful space, energy and materials, rich culture and history, eternal nature and landscape, clean soil, water and air. All address some physical qualities that can be called the environmental qualities.

The utilitarian view on environmental qualities is not new (**slight 3**). Amenities are highly valued. Adam Smith, great Scottish moral philosopher and economist, expressed in 1776: “The beauty of the country besides, the pleasure of a country life, the tranquillity of mind which it promises, and wherever the injustice of human laws does not disturb it, the independency which it really affords, have charms that more or less attract everybody; and as to cultivate the ground was the original destination of man, so in every stage of his existence he seems to retain a predilection for this primitive

employment”¹. Utility is at the core of environmental ethics. Nathan Rosenberg² traced it back to liberalism, as expressed by John Stuart Mill in the United Kingdom in the mid of 18^e century.

Since then, the modern environmental ethics is focused on restrain the instinct of growth (**slight 4**). The restrain is pursued as a safeguard of welfare growth. The essence of environmental management is safe shelter. The restrain can be found in communalism in Deep Ecology developed by Arne Naes in Norway, christian concept of Stewardship of Bob Goudzwaard in the Netherlands, in socialism that is translated into Ökologische Modernisierung by Otto Ulrich in Germany and so on. All modern environmental views underlined the need for restrain.

¹ Smith, A., (1776), ‘On the natural progress of opulence’, reprint in A. Smith, *The Wealth of Nations*, Book III, Chapter I, Penguin Classics, London, 1986, p. 481.

² Rosenberg, N., ‘Technological innovation and natural resources: The niggardliness of nature reconsidered’, in N. Rosenberg, *Perspectives on Technology*, Cambridge University Press, Cambridge, 1975, p. 229-259.

The modern environmental ethics is a social and political success. Environmental qualities are at the top 5 social priorities in Europe. It took only ten years after the proclamation of modern environmental ethics in the Blueprint for Survival to reach the top politics and business. The first Summit in Stockholm in 1982 urged to shrink the polluting economy. Ten years later, the Summit in Rio de Janeiro proclaimed sustainable development that is clean, distributed economics to benefit all. The Summit in Johannesburg in 2002 called for prudent, good governance with intoxicating phrases but a notorious smell of corruption at the highest ranks.

Pursuing restraint invoked many innovations (**slight 5**). The dramatic views of dirty earth created sense of urgency. Sense of urgency is the precondition to innovate. Prudent use of natural resources and pollution are primarily addressed. These can be considered classic environmental problems. The classic environmental problems are effectively tackled in the North Sea region. The biodegradable matter in water is largely reduced thanks to water treatment plants. Headlines about acidified lakes and hazards of asthma because of smog became scarce due to cleaner fuels and catalysts. Destruction of ozone

layer is limited due to cleaner products. Farmers balance the use of pesticides and fertilizers. Brain damage by lead, dioxin in milk and poison in food gradually become a history. Oil spills are largely controlled. Fisheries are monitored. Much more should be done in some areas but over all we can count the blessings.

The modern environmental ethics provided profitable solutions. Pollution prevention did not impede economic growth but on contrary, exports increased, manufacturing became cheaper and better managed. The costs of pollution prevention decrease. The annual costs reduction is 3.3%, which is better than the industry average. Some industries attained annually 11% cost reduction, which as high as in electronics. The costs of photovoltaic cells drop even 20% a year, so the price is cut by half every four years. All main classic environmental problems become manageable. The greenhouse gasses can be reduced by 40%, waste by 60%, the biodegradable and acidifying pollutants by 90% to 95% at hardly extra social costs. The challenge is to keep control because maintenance is politically less sexy than debating new issues.

The classic environmental problems are managed so well that some scholars heralded the end of politics on environment. Those that make living on environment can sleep well. The classic environmental problems of pollution and resource use remain with us. New priorities appear. Climatic change as global warming is a major issue. So, energy saving and renewable sources are advocated. A new priority is coastal pollution because tourism grows annually by 7%, so pollution doubles every ten years. Dispersion of hormones, medicines and pesticides should become a priority in view of bacteriological, fungal and viral risks. The risks increase because of more intensive contacts with animals and plants. The problems seem unsolvable now, but they gradually become manageable as well.

Many solutions are within hand reach (**slight 6**). Solar cell forests can be erected. Electric ships, cars and planes can be built. There are clean recreation services, degradable low-toxic products and closed water cycles. Balanced agriculture, labs on chip for monitoring, satellites for early warning are developed and so on. Some solutions are still costly, but

innovations help to reduce the costs and to bear these fairly. The question is whether the North Sea region remains the world leader in environmental technologies or will other countries take the lead. It can be for example China in clean manufacturing, India in balanced agriculture or Korea in monitoring. The time will show.

The classic environmental problems do not pass. The restrained use of resources and pollution reduction is also not the end of history on environmental innovations. We face a new challenge that is how to prevent misfortunes of policies that reshapes environmental qualities. Christian Leipert, the scholar into value of public goods, argued that we must put more and more efforts to counteract the negative effects of actions because many actions reshape environmental qualities. He calls the efforts the defensive costs. The train of thought is something like trampling of nature triggers creation of natural reserves that seduces eco-tourists that cause more pressures on environment that in turn raises the demand for eco-reserves. We are often not aware of the high defensive costs, but they limit welfare and cause bumpy economic growth. There are many cases of high defensive costs to counteract the social

effects of degrading environmental qualities. I focus on degradation of public space because it can ruin social bonds and cultural identity (**slight 7**).

We concentrate nature. Grassland is more productive than tropical forest. Farms accommodate huge biomass per square meter. Labs and gene banks compound, generate and manipulate biodiversity. Species migrate. Spread of exotics triggers biological warfare. For example in Amsterdam, sparrows are eradicated by parakeet invasion. Can we combat intruders like new HIV-like infections or malaria mutants? Can we remain nostalgic about the nature without ideological and religious fundamentalism?

The countryside is diluted. Farms collapse. Households thin out. The remaining ones are often aging people with low income and limited mobility. They can't use and pay current services, so services move out. So more immobile people, the aging, sick and invalid ones, are transferred from cities to join the reserves in countryside. The process stresses social care. It is more stressful than economics, because social care is affordable as long as the national productivity grows faster

than the non-productive lifetime, as it is in the North Sea region. The major question is how to survive on the countryside? Can we create services to preserve or even revive social activities?

Cities are wringed out like in a centrifuge. In the last fifty years, constructions are crashed faster; the average lifetime of buildings dropped from 50 to 35 years. Most locals moved to suburbs and immigrants entered the cities. People commute a few hours a day, like nomads. After seven evening, public space in downtown of so many cities looks like a deserted area. Cars dominate public space in the suburbs. Now wonder that citizens feel unsafe and scream for new politics. How to recapture urban environment for social bondages? Can political elite be satisfied without opening new bunkers?

No doubt that public space must be defended from degradation, but we do not know how to tackled it. Maybe deliberation about preventing of the degradation is less effective then support of new environmental services. Environmental services foster availability of environmental qualities, like swimming in the winter due to heating by solar

cells. The services can generate innovations because public space is a scene of personal dramas. Thus urgency can be sensed and personal gains can be reached (**slight 8**).

People want that environmental qualities are made available right around the corner, like having pets. Services that create local availability are much demanded. Baths flourish. Cultural and natural heritage attract mass tourism. Regional products are sold at premium prices. Millions camp during holidays. Market of second houses is booming. People travel many miles for a weekend in parks. Discovery channels show nature round the clock. International roots are traced by tours. Local traditions revive. Ancestors are in. Organic is right. Ambient music is experience. Whale watching is an event.

We pay a lot for environmental qualities (**slight 9**). We are ready to pay even more for the good qualities. Tap water costs about € 1 per cubic meter, bottled water of similar quality about 500 times more. Gardens are so precious that we pay manifold the revenues of gardening, maybe except hemp cropping. Neighbourhood in the cities counts, so a tiny room in a nice district costs the same as a big flat in a moderate one.

We deliberate every penny on foods and spend a fortune to dive on coral reefs.

There is large demand for environmental qualities. It is pressing if to reach a personal touch. A huge playground for environmental innovations can be found. Just to mention a few. We can develop regional foods and ready meals based on variety of crops and animals. Plants support services for hygiene and personal care. Tourism and recreation generate sports products and transport means. Decentralized services are useful in periphery and substitute costly infrastructure. Communication and information support education and social care in countryside. Multifunctional offices and cultural centre reduce commuting and strengthen urban links. Customized private-public transport enables movements of less mobile. Networks of urban events strengthen creativity and know-how. Making environmental qualities available changes economic structure. The heavy industries in National Product diminish in favour of final products and services. It is a prosperous perspective.

There is much to do in the North Sea region (**slight 10**). The classic environmental problems should be managed, the upcoming problems put high on political agenda's and environmental services fostered for availability of environmental qualities. All these do not take off spontaneously because conditions are not favourable. The political and financial powers of environmental services are rather poor. Liability for damages that is caused by pollution hardly exists. Many polluting activities and persistent infrastructure are subsidized. Public procurement is biased towards low price and low quality. Policy makers focus on mega projects in view of elections, less on social capabilities. Businesses address mainly investments, less life cycle costs. Policies are needed to manage the classic environmental problems and to foster environmental services. It is not necessarily more regulation but rather enabling people and organizations to get rights, start actions and resolve conflicts.

March in his seminal work on decisions in organizations ³, argued that decisions are often pennywise and pound foolish,

³ March, J.G., (1971) 'The technology of foolishness', in J.G. March (ed), *Decision and Organisation*, Basil Blackwell, Oxford, 1989, p. 253-265.

because we tend to support vested interests instead of innovators. He underpins that more deliberations usually do not help to innovate but obscures decisions. He advocates foolishness in organization to create an innovative drive. Foolishness in his view is not an abstract term. It is a functional unit sufficiently high in organizational hierarchy to push through good ideas and provide monies at the start. We can learn from these notions. Could it be a unit at the Environmental Commission of the North Sea to foster environmental services by creativity, networking and seed money.