

SOCIAL RESPONSIBILITY OF ANIMAL SCIENTISTS IN THE NEW EUROPE

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ABSTRACT

Enlargement of the EU in 2004 from 15 to 25 countries was a significant moment in European history. The process of bringing countries and peoples together is likely to continue forming a larger EU and Greater Europe. The formation of Europe over many millennia has created diverse ethnic groups, cultures and languages. The genetic and cultural origins are briefly described. European values developed under Judea-Christian influences. The EU is not intended to homogenize this human biodiversity but to provide unity without uniformity. The paper focuses upon agriculture as a historic formative influence and argues that its future role must embrace rural and environmental quality of life issues as well as food. The model of intensification and scale in agriculture developed in the 20th century in Western Europe under government policies has brought an abundance of cheap food and also massive demographic movements of people from rural to urban locations. The paper argues that this model should not be adopted for the enlarged EU and Greater Europe because of the inevitable consequence of further migrations of up to 73 million people from the land, creating enormous new socio-economic problems. The paper calls for animal and agricultural scientists to develop, with other disciplines, a new model for European agriculture which will not divide rural from urban society and will enable the former to share prosperity and quality of life with the latter. New values of community and recognition of social capital are needed if this endeavour is to succeed.

Key words: agriculture / animal science / scientists / science / EU

DRUŽBENA ODGOVORNOST ŽIVINOREJSKIH ZNANSTVENIKOV V NOVI EVROPI

IZVLEČEK

Širitev EU v letu 2004 iz 15 na 25 držav je bil pomemben dogodek v evropski zgodovini. Proces zблиževanja držav in ljudi bo verjetno nadaljeval oblikovanje večje EU in veliko Evropo. Tisočletno oblikovanje Evrope je ustvarilo različne etnične skupine, kulture in jezike. Na kratko so opisane genetske in kulturne korenine. Evropske vrednote so se razvile pod vplivom judovstva in krščanstva. EU nima namena poenotiti te humane biodiverzitet, temveč zagotoviti enotnost brez enoličnosti. Prispevek se osredotoča na kmetijstvo kot na zgodovinsko oblikovan vpliv in razpravlja o njegovi vlogi v prihodnosti, ki bi morala obsegati tako kmečko in okoljsko kakovost življenja kot tudi kakovost hrane. Model intenzifikacije je v razvoju kmetijstva v 20 stoletju v zahodni Evropi pod vplivom vladnih politik prinesel obilje poceni hrane in tudi množično preseljevanje ljudi iz kmečkega v urbano okolje. Avtor meni, da ne bi smeli tega modela prilagajati razširjeni EU in veliki Evropi zaradi neizogibnih posledic nadaljnjih migracij do 73 milijonov ljudi, ki bi ustvarili velike socialne gospodarske probleme. Prispevek poziva živinorejske in kmetijske znanstvenike, da skupaj z drugimi znanostimi razvijejo nov model za evropsko kmetijstvo, ki ne bo delil družbe na ruralno in urbano ampak bo omogočal razcvet podeželja in kakovost življenja v mestu in na podeželju. Potrebne so nove družbene vrednote in prepoznavanje družbenega kapitala, če želimo, da bodo omenjena prizadevanja uspešna.

Ključne besede: kmetijstvo / živinoreja / znanstveniki / znanost / EU

INTRODUCTION

This year, 2004, has seen a momentous event in the history of Europe. After centuries of division we are rebuilding community in Europe on a scale not seen since the Roman Empire and beyond those old frontiers. The enlargement of the European Union from 15 to 25 countries on 1 May 2004 passed quietly but was a significant step in the courageous process of healing the past and shaping the future. Preparation for enlargement has been a mammoth task and will continue. Europe will undoubtedly expand more – perhaps even to its old historic and geographical boundaries. Bringing together so many diverse peoples of different ethnic and cultural backgrounds, some of whom carry hurting memories of the past, is inevitably a slow process and needs patience. Some people are impatient for a federal Europe. Others enjoy the benefits of political freedom, a unified trading block without tariffs and boundaries while retaining the human biodiversity this continent offers. The continent of Europe cannot embrace a uniform culture and language on the model of the USA. The key in Europe must be unity without uniformity.

The history of Europe has combined extreme violence with sublime elegance and high learning in the arts and sciences. Rival Empires, civil wars and oppression of minorities has been mixed with the flowering of advanced civilization. The outstanding advances of knowledge, skills, wealth and power in communication, transport, energy sources, and industrialization with economic and political development have contributed positively to a unique civilization but regrettably also enabled violence to become more extensive and brutal. We recall that the 20th century in Europe saw the most extreme forms of Fascism and Socialism that divided the European community. The 20th century also found Europe in the largest scale conflicts ever seen. We call them World War I and World War II and they had their origins in Europe.

The concept of the EU was created following World War II by visionaries, Monet and Schuman and colleagues, whose primary aim was to avoid any further internal conflict in Europe by binding people together in economic unions. They did not visualize the homogenization of European ethnic identities nor cultures – that would be both impossible and undesirable. The ethnic and cultural diversity of Europe that has been such a great source of conflict in the past could become one of our greatest strengths. The name of the European Union implies unity. We have to build unity with diversity. Community is always a unity without uniformity. A body, animal or human, is a unity with diversity of tissues, organs and limbs, diversity of purpose and function. So it is with the human community. We know only too well the truth written in the Bible by St. Paul: “In a body, when one part suffers, the whole body suffers”. We all have a responsibility for the well being of the whole.

The particular focus of this paper is agriculture as a cohesive influence in human society. Historically agriculture has been immensely important in Europe. The thesis of this paper is that agriculture in Europe should have a major role in the future, going well beyond food production. Therefore animal scientists have special responsibilities, not only as scientists, but also as leading citizens with power and influence to shape the new Europe – to bring together all those with common ancestry and culture. To understand where the enlarged Europe may go in the future, we need to understand more about our ethnic and cultural history. Otherwise we may make the same mistakes again and cause deep divisions of another type: separating rural from urban sectors; dividing rich industry from poor farmers; giving prosperity to those owning capital and returning little to those giving only their labour. Socio-economic divisions of those types are deeply destructive in an organic community of life. They give opportunity for demagogues again to inflame ethnic and cultural violence. The challenge is serious and new solutions are needed if Europe is to become a diverse society with unity and peace. Agriculture has a major role in shaping the enlarged Europe.

To understand the types of changes which are needed, we first look back to learn from our past, for those who are ignorant of the mistakes of history are liable to repeat them.

IDENTITY, CULTURE AND ETHNICITY IN EUROPE

Land, power, slavery and economic resources have always been the motives behind wars and conflicts. But manipulative leaders have often called their followers to war emotively by couching their persuasion in ethnic or cultural terms. The common practice is to define as evil others who are different. Unfortunately this practice continues in the world today. Personally I marvel at and am thankful for diversity in humanity – it is a wonder of genes and of culture.

The historic religious culture of Europe is Christianity. But sadly, institutional Christianity in Europe has also often descended to power seeking and abuse. By contrast, the Jesus way, also advocated by most mainstream religious teachers, is to “Treat others the way you would like them to treat you”. This leads, not to persecution of others, but to the enjoyment of diversity and differences – one of the reasons that I find EAAP to be more significant than the national animal production societies.

I have lived through the extremes of abuse and hatred based upon either genes or culture. Nazism was based upon ethnic superiority and genetics: Jews to be exterminated and Slavs to be slaves. It was extreme. Soviet communism was a huge social experiment that claimed that culture could reshape people and society to perfection. That ideology proposed to create Homo sovieticus, one result of which was to enable Lyshenko, representing elite, self-appointed governance, to ruin Soviet agriculture for personal and political advantage. That was also an extreme. As an animal geneticist I know the importance in human society of genes, culture and most important, freedom to choose. As we go forward in an ever enlarging Europe, people and especially leaders in all areas of life have to choose. We become victims of our genes or culture only if we fail to choose the good way that builds community and takes account of the interests of all members of the European family.

The negative experiences of genetic and cultural control in political hands is one reason why the majority of Europeans reject Genetically Modified food and also are very negative about being colonized by the US culture. Unity does not have to mean uniformity of genes or culture. Europe is unlike the USA in many ways. Today Europeans are very suspicious of governments and of institutional religion because of the violence and intolerance of the past. Although some Central and Eastern Europe countries still have deeper attachments to institutional religion, in Western Europe we now live in a post-Christian, secular society. We have long memories of too much violence and hatred and religious bigotry. That is a main reason why Europe is a secular society.

But finding ethical values in a secular society is a struggle. Can a secular society offer values that will keep us tolerant and peaceful? Some are searching for what they call European Values based upon rationalism and the Enlightenment. But the Enlightenment experiment of throwing off Christianity did not bring an end to violence as shown by the last two centuries. Now we face the challenge of finding values of tolerance and peace in the growing EU. Living in unity without uniformity is a specific challenge for Greater Europe. Whereas the USA feels that its culture and values are so attractive they should be exportable, citizens in older societies usually insist on retaining their own language, culture and values even if they also enter into economic partnerships in trading blocks.

The broken history of humanity and the challenge to rebuild Europe provokes many thinking leaders and thoughtful people to recognize that economic success is not enough. Material prosperity does not offer enough social glue to hold us together. The task of developing an improved quality of life in the 21st century will not be brought about simply by economic blocks

and political alliances. Consequently, in the enlarged EU and also in the growing WTO there is much hard work to be undertaken to understand different cultures and values of people with disparate traditions and life styles.

Since food and agriculture play a major part in defining cultural identity, those of us working within those fields, animal scientists and agricultural scientists, have a major new task in opening ourselves to a new paradigm of what and how we should be contributing to the development of society. To do this we need a new understanding of human culture, values and ethics. The implications of this trend are deeper than may first appear.

EUROPEAN VALUES AND IDENTITY

In 2003, in anticipation of enlargement, the European Union launched a Reflections Group to deliberate on the question of European identity. The brief to the Reflections Group calls for better understanding on the question of European identity and common European values in their relation to the social and political structures of the enlarged EU. In his statement at the first meeting of the Reflections Group, the President of the European Commission, Romano Prodi, said, "If we are to build a Europe inspired by a sense of common destiny, we need to reflect upon the cultural background which allows a specifically European phenomenon of unity within diversity".

In London in May 2004, James Wolfensohn, President of the World Bank, also spoke of "The challenge in economic development of uniting in dialogue on equity and social justice – about what is right." He said: "Absent from the debate at the moment is any sense of moral values or even spiritual values in development. And, we are so used to beating each other up in terms of what I do, what you do, what we've got wrong, what Europe's got wrong, what America's got wrong that we have to get back to searching our souls for values. Today, 45% of the world population is under 24 years of age." He went on to say "I have personally taken time to talk with many of them in the last couple of years. They are turned off by the lack of values in the leadership of the world. None of us is giving these young people a real, true sense of purpose and a true sense of values and a true moral case in terms of the issues of development and social justice."

To understand the social and ethical challenge now facing Europe we need to reflect briefly upon our different ethnic and cultural history.

GENETIC ORIGINS OF EUROPEANS

Mammals have been on earth from about 70 million years ago. Evidences of the earliest manlike creatures, in the form of fossils only, are dated about two million years ago. The current view is that *Homo erectus* came out of Africa about half a million years ago leading, among others to the well-known group of Neanderthal people who were in Europe about 75,000 years ago but are now extinct. For many years it was commonly thought that European ancestors were Neanderthals. However that idea has now been dropped.

Today the view is that the earliest ancestors of modern Europeans were *Homo sapiens* who arrived in Europe about 30,000 years ago from the Middle East. The earlier view that *Homo sapiens* interbred with Neanderthals has recently been discounted using mitochondrial evidence. Fossils from Neanderthals show no commonality with the mitochondrial DNA of *Homo sapiens*. There was recently another discovery in Ethiopia of another extinct group of *Homo sapiens* called *Homo sapiens idaltu*. It is thought that they were also a group within the species *Homo sapiens* having a common root but separate from modern man. They are also extinct. *Homo*

sapiens is the only human now living and is a remarkable species, not only because of our genes, but also because of our astonishing culture and behaviour.

During the period from 100,000 to 10,000 years ago (the Upper Palaeolithic) hominids behaved as hunters and gatherers usually as individuals, families or very small groups. Eventually individuals began to use primitive tools of bone, ivory, stone and some clothing. However, the Neolithic or New Stone Age saw a most unlikely and significant event, the Cultural Revolution in Homo sapiens.

CULTURAL REVOLUTION

We find evidence of remarkable changes in mankind in a relatively short period around 12,000 years BC. These are the first signs of what we now call civilization; namely, people living together in community and leaving ruins and artefacts on a massive scale from which we can see their cultural developments and shared life. The earliest large-scale communities were in the Middle East and include a shift from hunting and gathering to cultivation, pottery, permanent settlements and much more. A special feature of this cultural development was the domestication of plants and particularly of animals. The original Centres of Origin of domestic animals were in the Middle East with copycat centres later elsewhere (Payne & Hodges, 1997).

It would be difficult to underestimate the powerful influence of domestication of livestock upon humans starting 10,000 to 12,000 years ago and continuing until the present day. Animals accompanied man through the Bronze Age (4,000–1,000 BC) and through the Iron Age: (1,000 BC) into the Greek and Rome periods.

In his book “Seven Daughters of Eve”, Sykes (2001) shows from mitochondrial DNA evidence that 90% of modern Europeans are descended from seven women – a remarkably small genetic base and further evidence of the Centre of Origin of European civilization. The Iceman is 5,400 years old and almost certainly came from the Northern Italian lakes into the Alpine pastures in summer with small ruminants where he encountered a tragic end. Fossils from Cheddar man (UK) about 2,700 years old and a woman living today in Dorset in the south of England have mitochondrial DNA identical with the Iceman.

AGRICULTURE AND LANGUAGES IN EUROPE

Agriculture started in Europe about 10,000 years ago. It had been thought that it developed within Europe as a replacement for hunting and gathering. We now know this did not happen. Agriculture was introduced by later Homo sapiens who came from the Middle East and brought with them some domestic animals: dogs, horses, cattle and sheep.

Other evidences of the origin of human civilization come from languages – also an immensely important feature of human culture. It is estimated that the common language of Homo sapiens existed about 10,000 years ago in the Middle East again matching the dates of the Cultural Revolution and also matching the Biblical record of mankind explaining how mankind started to behave as we know ourselves. Language has proliferated into Families (230–300) with 6,604 known languages in the whole world. The oldest written language is Sumerian from 3,100 BC in the Middle East.

Proto-Indo-European language emerged in the Middle East about 5,800 years ago plus or minus 1,000 years and spread both east as far as India and west into Europe (Crystal, D. 1998). Today the Indo-European group has 386 languages spoken by 2.5 billion people out of 6.5 billion in the world, indicating its great influence upon the development of human society. English is spoken by 427 million as their first language. Other Indo-European language branches include: Celtic, Germanic Italic, Albanian, Greek, Baltic, Slavic, Armenian, Iranian Indo-Aryan.

Earlier in Europe there were non Indo-European isolates (Iberian and Etruscan – now extinct); the only remaining ones are Basque, Finnish and Hungarian, the latter two from the Uralic language group spoken mainly by people north of the Caucasus. Other groups apart from the Indo-European languages are:

- Sino-Tibet: 272 languages with 1.1 billion.
- Austronesian: 1212 languages 269 million.
- Niger-Congo: 1354 languages with 206 million.
- AmerIndian: 985 languages with 22 million.

These figures give prima facie evidence that as migrating groups from the Cultural Centre of Origin in the Middle East spread into more isolated regions, they developed individual languages within their Language Group but with smaller numbers of people diversifying into distinct cultures in which they also adapted their farming to the natural resources, climate and environment. The model is genetic drift producing cultural diversity.

DOMESTIC ANIMALS AND HUMAN PROGRESS IN EUROPEAN CIVILIZATION

The history of European civilization is closely associated with domestic animals enabling humanity steadily to rise from primitive conditions to life of higher quality. During several major agricultural eras, livestock have played a key role in freeing humanity from the drudgery of manual food production and permitting many new activities, thus raising the quality of life. The eras may broadly be summarized thus:

- Hunting and gathering. Wild animals hunted for food, clothing, fuel, and other products;
- Domestication of animals and plants. Settled farming with animals providing draught power, food and manure and facilitating human migration, transhumant and nomadic lifestyles;
- Steam power and fossil fuel. Animals used less for power and more for food;
- Intensification. Animals increasingly seen as disposable resources in large scale specialized food production systems. Western society produced the Intensification Era, which has accelerated in Europe and North America in the last half of the 20th century but which is now being challenged especially in Europe.

Animals release people from the hard labour of heavy field work; animals make possible the transport of natural resources and farm products to other communities for barter or sale; animals provide animal fat and protein for improved nutrition; animal milk enables infants to survive and grow when quantities of human milk are insufficient; animals provide leather, wool and horn for clothing and shelter; animal fat is used for lighting; dried manure from large animals is fuel for cooking and heating; animal power is used for extracting water from the ground and from rivers for domestic use and for irrigation; animals contribute to improved and integrated farming systems on cropped land; ruminant animals harvest natural vegetation that would otherwise not enter the human food chain; throughout human history, riding animals was the fastest way to travel over land until the invention of the railway in 1829 – only 175 years ago. The domestication of animals was the first step to improve the quality of life through science and technology (Hodges.1999). Today the majority of people in the world still depend upon animals for these services and, without them, life, even in the simplest societies, would disintegrate again into the slavery of food production.

The major advances in European civilization leading to trade, industrialization, the application of science and the development of market economy capitalism were possible because animals had first freed a proportion of the population from the daily routine of food production. Following further applications of science and industrialization throughout Western Europe and North America over the last 150 years, the majority of people have been set free from work on

the land, leaving only 5–10% to farm. Today, one has only to visit rural areas of Africa, Asia and Latin America to see the contrast with the West and the significant contribution of domestic animals. Closer to home, going east from Western Europe into Eastern Europe and Eurasia one can see in many of the new States of the former Soviet Union the vital role of domestic animals permitting rural people to survive and to maintain human dignity in the current conditions of great poverty.

MODERN EUROPEAN HISTORY

For thousands of years agriculture was at the centre of European communities and culture until industrialization and capitalism prompted urban development on a large-scale. Market economy capitalism arose in Western civilization and, in general, is an economic success story without rival in human history. How did this happen? Many factors, most originating in Europe, combined to produce the elite economic prosperity of Western society: Judea-Christian beliefs and values, the Reformation, the Renaissance, the Enlightenment, the growth of science, the agricultural and industrial revolutions, colonial empires and democracy. Whatever the precise combination of causes, since the 18th century the political structures and socio-economic organization of Western nation-states under capitalism have, through industrialization, created new wealth and raised living standards in the West, although unevenly.

Together with new wealth, market economy capitalism brings vast socio-economic change, which, if accompanied by civilized government, can lead to better life quality such as falling infant mortality, increasing education, better health care and longer life expectancy. The powerful economic principles driving these changes are “division of labour” and the “law of comparative advantage” (Adam Smith, 1776, and David Ricardo, 1817). Agriculture releases labour for industry while absorbing more capital and other external inputs, enabling one farm worker to feed many families and to reduce the cost of food at the farm gate as described by Hodges, 2003. Capitalism is marked by a distinct disadvantage. It distributes new wealth unevenly and increases the gap between rich and poor. The wealth gap is the Achilles Heel of capitalism.

THE ENLARGED EU: A VITAL POLICY QUESTION

We now face an immensely important question with huge economic, social, and ethical implications. The enlarged European Union of 25 countries now has a population of 470 million people. Growth of Greater Europe in the coming decades will bring more countries within the European fold whether or not they formally join the EU. The populations of these countries magnify the scale of the same basic question.

Here is the question: Do we intend to repeat the model of Western industrialization for the enlarged EU? Two major issues would flow from implementing such a plan:

- More surplus food and
- Massive population movements from the rural areas into ever growing mega cities.

The 15 member EU already has surplus food production. Many of the Central and Eastern European countries have vast resources of farmland and large rural populations. If the Western model of industrialization with intensification of farming spreads across the face of Europe excess food production will burgeon and millions of people will move from rural to urban lives.

In the 15 member EU only about 10% work on the land. Think about the situation in other countries: Poland 25%, Romania 37%, Moldova, Georgia and Albania 50% and Armenia 55%. These are not small numbers of people. For example, if we visualize the Western European model of intensive farming spreading across Russia where 16% of the population are on the land

then 22 million people will have to leave the land for other destinations. In the 19th century the surplus farming populations from Europe went to the expanding New World. That is scarcely now an option and gives focus to the special socio-economic problem faced by agriculture in Greater Europe.

If the Eastern countries were to adopt the model of agriculture from Western Europe and bring their farm populations to the percentage we had in the EU of 15, one can calculate the extent of the migration from the land.

- The ten new EU member countries: 4.5 million (Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia).
- Eastern Europe: 18 million (Albania, Bulgaria, Croatia, FYROM, Romania, Yugoslavia).
- Western part of the former USSR: 40 million (Russia, Ukraine, Moldova and Belarus).
- Central Asia: 11 million (Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, Kyrgistan).
- Total 73.5 million people.

In deriving these figures I am indebted to Tiina Vares (2002), for her unpublished paper which classifies the countries of Central, Eastern Europe and Central Asia.

COMMON AGRICULTURAL POLICY

Movement towards the EU started in 1948 and reached a significant milestone with the Treaty of Rome in 1967 and the exceedingly important Common Agricultural Policy (CAP) in 1968. Since the end of World War II in 1945 and for the last 35 years, supported by the CAP, animal science and business management have turned livestock into disposable biological resources that are processed swiftly on a huge scale to supply animal products to distant markets. This paradigm of intensive animal production and associated crop farming is new in human experience and has no track record of sustainability. Today there are clear signals that it is unsustainable, such as chemicals in drinking water leading to legislated restrictions by the European Commission. The CAP policy of price support has also produced a food surplus accompanied by subsidized exports that have had a distorting effect upon world trade, especially affecting developing countries. As we all know, the CAP has become a source of embarrassment because EU agriculture has become so efficient. It was success of farming that enabled industrialization to emerge. Civilization in Europe has moved from agriculture to industrialization. But the pendulum is swinging back. The new EU Agenda in 2003 decouples support from production and places great emphasis upon the quality of food production and the quality of rural life and the environment.

The new agenda recognizes that European domestic food supply matches home demand and the intention is to decouple price support from production, ending that by 2012 and by redirecting finances to focus upon safe food, animal welfare, designated foods, voluntary labelling and organic food. Farming is integrated into a programme to sustain the European countryside, environment and rural life quality.

Farmers in the 15 EU countries are now struggling to understand the implication for decoupling for their own farm systems. Such a radical change in policy clearly also has implications for animal scientists. Our challenge is to develop new research and farming systems policies so that the intellectual resources of scientists can be applied to the new decoupling phase when quantity of cheap food is no longer the objective.

As part of this phase shift, we have the prospect of an enlarged EU and in the years that lie ahead, a Greater Europe. Animal scientists need to work towards a new paradigm for agriculture in the countries of Central and Eastern Europe that will enable quality of life without moving millions of people. Or are we going to turn the whole of Greater Europe into a civilization where most people live in cities and have no contact with animals while the poor farmers live in a

different world on the land? That would not be unity in diversity, would again divide Europe in socio-economic ways and would be unstable in the longer term.

INTENSIFICATION OF ANIMAL PRODUCTION

The current paradigm of animal scientists for capturing and applying new knowledge at the molecular level is very powerful and exciting for scientists. However, its application as a further contribution to intensification and scale of farming cannot go unchallenged and must be informed by the needs of the emerging Greater Europe.

Animal scientists were once focussed upon the needs and values of farmers. Recent decades have seen a swing to the perceived needs of the consumer in a fast moving market economy where values no longer derive from society as a whole but from the leaders in the multinational food business and the supermarkets that hold great economic and social power. A recent unpublished study by Professor Tim Lang at City University, London, shows that just 110 buyers for supermarkets and processors act as “gatekeepers” between 3.2 million European farmers and 250 million consumers (Landmark, 2004). This is not a democratic way for food and agriculture to be driven. Business has its place, but as Nelson Mandela said in May 2004 to the United Nations World Food Programme: “Agriculture and Food are not economic issues, they are moral issues”.

WHAT ARE OUR VALUES AND WHERE IS OUR SCIENCE TAKING EUROPEAN SOCIETY?

The crucial issue, to my mind, is to recognize that the boundary separating mankind from other species, especially our endowment with culturally derived richness, gives us unique responsibilities as well as privileges. The accumulated wisdom of mankind until the last few generations in the West has always recognized transcendence as part of human nature. The majority of people still do. This transcendence gives us the moral capacity to use our superior knowledge for good or for evil. Our moral framework and ethical decisions will determine our survival as transcendent responsible beings or simply as another animal species.

A life agenda driven only by values that maximize the material prosperity of the individual is a reductionist view. It takes no account of the larger whole – of social capital as well as financial resources. Yet, the history of human civilization is the story of community slowly built up by hard work and wisdom but periodically destroyed by narrow agendas and foolishness. Living as individuals alone in nature was a dangerous and precarious life style. Civilizations progressed when quality of human life was defined to include transcendence as well as material prosperity. Civilizations declined when a material agenda and individual greed squeezed out higher values. Europe has a heritage which upgraded society over many centuries and defined quality of life in multiple dimensions. But, to our loss, we are neglecting our heritage and increasingly have tunnel vision for immediate and personal material prosperity.

We have lost touch with the values that our ancestors learned from their animals. They knew that if you want your cow to have a calf and to produce milk next year, you cannot take all the resources of the cow this year. Resources need husbanding if they are to produce sustainably in perpetuity. Natural capital can be squandered.

Under the influence of science and market economy pressures, values in Western society have lost the holistic approach. It seems totally irrelevant to the shopper buying animal products to suggest that this way of life is harming the environment. Like all societies, we are driven by our values, which are leading us from legitimate self-interest to greed. Greed always destroys and produces inequity. It is time to look back to our history.

A NEW QUALITY OF LIFE MODEL IS NEEDED FOR AGRICULTURE

I am not advocating a return to primitive lifestyles. The world needs good science and responsible business to create wealth to raise the quality of life throughout our exploding world population. Rather, I am calling for new and higher values in Western society in the business of creating and sharing the new wealth across Greater Europe. Better values are characterized by community which means sharing and interdependence; by genuine self-interest in quality of life for all people instead of individual greed; and by patiently working with nature in the interests of sustainable use. To achieve this end we need new models for agriculture and food to enrich and not to divide society.

We are foolish to think that Wholeness and Sustainability are negative restrictions on the good life. Wholeness and Sustainability are Quality of Life experiences not provided by the search for endless and greater material prosperity. Our present model, that has served Western agriculture so well to date, must now change as in the enlarged Europe it increasingly leads to division, inequity and is unsustainable. We must change – or our children will experience another phase of violence in Europe instead of the peace and prosperity that we hope to bestow upon them.

Václav Havel is an outstanding European leader who was courageous enough to stand and speak against the system when he saw it was taking society the wrong way. In his speech in New York in September 2002 on the occasion of his last visit as President of the Czech Republic he said:

“If humanity is to survive and avoid new catastrophes, then the global political order has to be accompanied by a sincere and mutual respect among the various spheres of civilization, culture, nations or continents....If we examine all the problems facing the world today, be they economic, social, ecological or general problems of civilization, we will always come up against the problem of whether a course of action is proper or not, or whether, from the long-term planetary point of view, it is responsible.”

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