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THE DOMINANT WAY OF LIFE IN NORWAY:  
POSITIVE AND NEGATIVE ASPECTS.

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## 1. Introduction

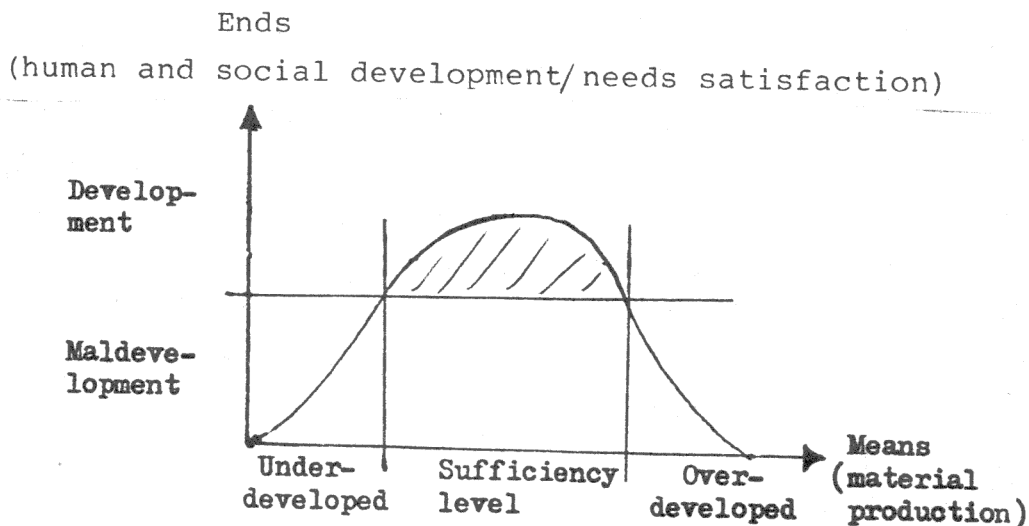
This chapter presents a view of the dominant way of life in Norway, a country which many people in other parts of the world have held as some kind of "ideal" in realizing key development goals. Certainly, in comparison with many other industrialized nations Norway has admittedly succeeded reasonably well in securing the average citizen a high level of material welfare, a well-developed social system, and relative equality between the elite and the people-at-large. Infant mortality rates are among the lowest in the world, life expectancies among the highest, crime rates relatively low, and Norwegians are known to be living healthy, well-exercised lives surrounded by the serene beauty of the Norwegian countryside. But things are changing even in provincial Norway as she seems to be approaching the post-industrial age. Are we indeed to become people living in an overdeveloped country, which, in spite of our non-colonial past, exploits poor masses of this world? Before we look at the statistical trends characterizing life in Norway, let us discuss what we mean by overdevelopment.

## 2. The concept of overdevelopment

We believe that development should be seen as being related to human, personal growth.<sup>1</sup> Personal growth can be achieved by people progressively satisfying their needs, material and non-material. Human needs can be classified into four groups: those for survival and for welfare (material needs), and those for freedom and for identity (non-material needs). A certain minimum of material production is required for these needs to be satisfied. However, it is the development of people that counts, not the ever increasing production of material means to assure their "development". At some point in time the material production level may start becoming less useful, so that any increment in consumption means progressively less for personal growth, and, eventually, becomes counterproductive.

It is at the stage where the production of things start interfering with personal growth that we experience over-development (Figure 1).<sup>2</sup> Thus we can think of a dividing line between development and maldevelopment, the latter consisting of both under- and overdevelopment. It is only within a certain range of material production and consumption, at a certain sufficiency level (no doubt varying with different cultures and historical conditions), that we may identify development.<sup>3</sup>

Figure 1: Relationship between human and social development and production level.



A central thesis in the theory of overdevelopment is that most countries which are usually called "developed", are really on their way towards higher degrees of over-development. This process is manifested in numerous ways, a central aspect of which is that the means chosen to satisfy certain needs either become counterproductive to the need itself or to other needs, to ourselves or to others.

The theory of overdevelopment may thus be presented as in Figure 2.

Figure 2: Overdevelopment and human needs.

Overdevelopment relative to:	Preventing satisfaction of	
	same need	other needs
1) Ourselves	Counterproductive	Trade-off/asymmetry
2) Others now	Conflict (Imperialism)	
3) Others later	Latent conflict (Future imperialism)	
4) Nature	?	

The two first cells related our own needs satisfaction represent the idea that overdevelopment is bad for the overdeveloped: either needs could have been better satisfied with less means (for instance less medication for better health)<sup>4</sup> relative to the need itself, or the fulfilling of some needs hampers the fulfilment of other needs (the need for mobility, for example, is satisfied by cars which threaten our survival, cause inequality and upset the ecological balance).<sup>5</sup> Other people are constantly being deprived of needs satisfaction because of overdevelopment in our society, something which creates conflict and gives rise to struggle against imperialism in underdeveloped countries. "Others later" refer to the latent conflict between present-day rulers (the middle-aged and the old) and the very young and those not yet born, who will reap the fruits of past generations' environmental malpractice. The last category, nature, is included for sake of completeness, even if we in the present context do not talk about the "needs of nature". But it is clear that overdevelopment does something to the natural environment, even if it has no way of expressing deprivation of needs. Or - is ecological imbalance precisely this - nature's own need-deprivation?

This chapter will focus on the first two categories in Figure 2 related to "Ourselves" (counterproductivity and trade-offs), taking as its starting point the list of needs in Table 1. Due to the difficulty of finding adequate indicators

Table 1: A typology of human needs.\*

Group of needs (types of needs specified under sub-headings)	Satisfiers or institutions held to be relevant in some societies
SECURITY NEEDS (Survival needs, <u>to avoid violence</u> )	
- against individual violence (assault, torture)	Police
- against collective violence (internal/external wars)	Military
WELFARE NEEDS (Sufficiency needs, <u>to avoid misery</u> )	
- for air, water, nutrition, rest	Air, Water, Food
- for movement, excretion	Space
- for avoidance of excessive strain	Technology
- for protection against nature	Clothing, Shelter
- for protection against disease	Medicines, doctors
- for self-expression, dialogue, education	Schools
IDENTITY NEEDS (Needs for closeness, <u>to avoid alienation</u> )	
- for self-expression, creativity, praxis, work	Jobs, Tools
- for self-actuation, for realizing potentials	Jobs, Leisure
- for being active and subject and not being passive, client or object	Recreation, Family
- for challenge and new experiences	Jobs, Recreation, Transport system
- for affection, love, sex; friends, spouse, offspring	Primary groups
- for roots, belongingness, support, esteem; association with similar humans	Secondary groups, Ancestors
- for understanding social forces; for social transperence	Political activity
- for partnership with nature	Parks, Wilderness
- for a sense of purpose, of meaning with life; closeness to the transcendental, transpersonal	Religion, Ideology
FREEDOM NEEDS (Freedom <u>to</u> choice, options; <u>to avoid repression</u> )	
- choice in receiving/expressing information/opinion	Communication
- Choice of people/places to visit/be visited by	Transportation
- choice in consciousness-formation	Meetings, Media
- choice in mobilization	Organization, Party
- choice in confrontation	Elections, Action Groups
- Choice of occupation	School system
- Choice of place to live	Housing, Labor market
- choice of spouse or life partner	Contact market
- choice of consumer products	Market places
- choice of way of life	Tolerance
- choice of death	?

\*This Table is a modified version of Johan Galtung's typology of basic human needs made in connection with the World Indicators Program initiated by the Chair in Conflict and Peace Research, University of Oslo, Norway.

for each category of needs, we will concentrate on welfare and identity needs, which pose less problems of measurement. These two groups of needs are no more important than the needs for survival and freedom, both of which also will be discussed below, although the empirical material for these groups of indicators is less substantial. Before we continue with our discussion of indicators, we shall briefly discuss some of the features of a "statistical Norwegian" as a general indicator of how they live in the present world.

### 3. Some characteristics of the Norwegian Way of Life.

Norwegians enter this world with a good chance of longevity: Infant mortality rates are among the lowest in the world, with deaths per 1000 live births in the late 1970's being around 10. A baby boy born in 1976/77 may expect to live slightly longer than 72 years, a baby girl for more than 78 years. Although times may change, prospects are that the high material consumption of today's generation will continue well into the future. Norway is a resource-rich country, being able to use her ample resources of hydro-power and petroleum to import what she may not have, nor wants to produce indigenously. Per capita calory consumption is below 3000 kcal per day. However, counting the primary calories in the fodder needed to bring forth a milk- and meat-rich diet, the total caloric consumption surpasses 10,000 - or about four times the daily need. Because of the relative scarcity of agricultural land, considering present eating habits, the equivalent of some 20% of the total Norwegian land area used in grain production is used in other countries (compare Figure 2, "Conflict") in order to secure our consumption of tobacco, coffee, tea, sugar, wine and liquor, cocoa and tropical fruits. Enough protein cakes, carbohydrate-rich fodder etc. is imported that Norwegian self-sufficiency in foodstuffs on a caloric basis during 1974-78 has been as low as 35-36 per cent.<sup>6</sup> The estimates per capita consumption of sugar in 1978 was above 40 kilos, with meat about 51 kg, milk 167 kg, cheese about 11,5 kg and

and butter and margarine around 21 kilos. Norwegians also consumed slightly more than 36 kg of fish per capita in 1978, reflecting the fact that Norway belongs to one of the world's major fishing nations.

Norwegians enter school at the age of seven, after already having spent one year in kindergarten, and some after several years of daily care in nursery homes or childrens' parks. Nine years of schooling is mandatory, and university studies may start after 12 years. At the age of 19 years or more, many join the 12-month mandatory military service (men only) or start a working career. Registered unemployment in Norway has traditionally been low, seldom above one per cent except for the last few years, when it sometimes has been approaching two per cent. However, it has been pointed out by some critics that the real unemployment figure is considerably higher, because many unemployed are classified as disabled and receive social security payment instead of unemployment compensation.

Working conditions in Norway are well regulated and work-hours shorter than in most countries; 40 hours week, week-ends off, four weeks of paid vacation (five weeks for those over 60) and retirement at 67 is standard fare for most people.

Norwegians spend most of their holidays in close contact with nature; skiing in the winter and hiking in the mountains or boating around the coastline in the summer. But with the advent of cheap charter-trips to warmer climates, vacationing is becoming more and more energy-demanding. Despite a well-developed public transportation system, automobility has been rising in importance, even after the OPEC price hikes in 1973/74. In 1975, as much as 72 per cent of total urban passenger travel was by automobile.<sup>7</sup> This figure may now be even higher, as record sales of automobiles during the last years have brought the number of inhabitants per private car down to almost three by the end of 1979.<sup>8</sup> Due to the emphasis on power-demanding industries (Norway is a major world producer of aluminium, magnesium, ferro-alloys,

paper and pulp, among other energy-intensive goods), per capita energy use is among the highest in the world, or some 8 tons of oil equivalent per person at the end of the 1970's. Per annum electric power production per inhabitant is higher than any other nation; it now surpasses 22.000 kWh (1979).<sup>9</sup>

Life in Norway may be good or bad - and as Norwegians usually compare themselves to other overdeveloped countries, we feel that we are doing fairly well. Through the whole idea of technical assistance we also have become accustomed to comparing ourselves with underdeveloped countries, thus feeling even better! But a closer look at certain statistics reveals some discomfoting trends.

#### 4. Survival needs.

In Table 1 we have defined survival needs to include both the need to avoid individual and collective violence. One type of violence is caused by accidents, where people are killed because of inadequate jobs design or traffic structures favoring speed rather than people's security. Table 2 below shows the record of violent deaths by accidents in Norway over the past century.

Table 2: Violent deaths by accident, 1876-1978.

Year	Average number of deaths per year*	Deaths per million population**
1876-1890	888	458
1891-1900	1207	575
1901-1905	1168	511
1906-1910	1108	472
1911-1920	1147	457
1921-1925	1041	384
1926-1930	1109	398
1931-1935	1001	350
1936-1940	1622	551
1941-1945	2945	968
1946-1950	1477	459
1951-1960	1567	453
1961-1965	1792	487
1966-1970	1909	497
1971-1975	2022	509
1976-1978	1896	469

\*Quintiles in the original data have been converted to decades for almost identical figures

\*\*Number of deaths divided by million population in the median year of the period

Source: Historical Statistics, 1968 and 1978, and yearly data from Central Bureau of Statistics (CBS), Oslo.



The figures in Table 2 show no single trend during the total period, although some important points may be stressed: First, death rates from accidents were relatively low at the end of the last century but jumped up rather suddenly at the beginning of 1900. After that, death rates declined consistently and reached a low point in the 1931-35 period, but rose dramatically during the Second World War and plunged down again during 1946-60. Then there was a steady upwards trend until the last three years, where accident rates again fell to more moderate levels. The assumption here is that if you die from accident, it is the probability of dying that counts, not the way in which you die. But if the figures are disaggregated, one may find that there have been dramatic decreases in accidents from fishing, and water transportation, during the period, and also from drowning. Since 1911 accidents from motor vehicles have risen dramatically, except for the last few years, when the figures actually have been declining. Norwegian statistics for children killed in traffic accidents have been very high by international standards during recent decades. However, from 1969 to 1979 the number of children killed dropped from a total of 105 to 53, while birth rates only fell by 22 per cent.<sup>10</sup> Although the figures still are unacceptably high, this is an encouraging trend.

Aviation accidents have only risen moderately since 1921, when they were first reported. Judging from Table 2, there have been two good periods from the point of view of accidents in Norway during the last 100 years, namely during 1921-35 and in the period 1946-60. Whether we are now entering a third "good period" is still too early to tell.

Another form of violent death is caused by homicide, where trends in the data seem easier to ascertain than for accidents. In Table 3 below are given the figures for the last 100 years, showing a relatively stable picture before the Second World War, with the lowest homicide period during 1916-1925 and during 1931-40. The abnormal war years were followed by relative tranquility during 1946-55, where homicide rates reached historically low times. After this, however, there is a marked and steady increase, with more than three times as many homi-

cides in 1979 than during 1951-55 (35 compared to 11), a signal that Norway passed an optimum level of satisfaction of security needs and many have entered into a phase of overdevelopment.

**Table 3: Homicides in Norway, 1876-1979.\***

Year	Average number of deaths per year	Homicides per million population
1876-1900	19	9.1
1901-1910	20	8.4
1911-1915	23	9.4
1916-1925	19	7.0
1926-1930	25	9.0
1931-1935	22	7.7
1936-1940	14	5.1
1941-1945	313	103.0
1946-1950	14	4.3
1951-1955	11	3.3
1956-1960	17	4.8
1961-1965	19	5.2
1966-1970	22	5.7
1971-1975	27	6.8
1976-1979**	32	7.9

\*Quintiles in the original data have been combined when figures in consecutive periods were almost identical

\*\*Figures for 1979 published in Dagbladet, May 39, 1980  
Source: Central Bureau of Statistics, Oslo.

Another threat to our sense of security is the occurrence of offenses of violence against people. Table 4 shows the situation during the last two decades. To the extent that these statistics are reliable, they show that after a fairly stable situation, more recently the rate of offences has almost doubled from that characterizing the earlier decade, that is, from 1956 to 1974. After that the situation has remained at the same high level.

**Table 4: Offences of violence recorded during 1956-77.**

Year	Number of cases:*	
	Per year	Per million population
1956	1666	482
1957-58	1950	556
1959-60	1910	536
1961-62	1960	540
1963-64	1976	537
1965-66	2120	567
1967-68	2470	597
1969-70	2973	769
1971-72	3226	824
1973-74	3520	886**
1975-76	3606	898
1977	3683	911

**\*Average number for the years indicated**

**Source; As for Table 2. \*\*1974 = 918**

In contrast, sexual offences recorded during the same period maintained an almost completely stable frequency. These statistics have therefore not been presented in this paper. Figures on child abuse or threats made to people are either nonexistent or too unreliable to be included here, but should be taken into account if further research into these issues is pursued.

Turning to the question of national security, expenditure on the military is supposed to secure against wars. In an overdeveloped society, however, this expenditure often becomes an end in itself, or rather a means to further the growth of the military-industrial establishment. When too many resources are being spent on the military, the search for national security may take away resources for the coverage of other needs. Furthermore, in the case of war, the destructive power of a modern defence system may be so large that it destroys the very values it claims to protect. But this cannot be shown unless Norway goes to war some time in the future, something which at present does not seem realistic, and, of course, something we all hope to avoid. Norway was

engaged in the Second World War, but it is now impossible to assess whether the relatively moderate death tolls experienced then would have been different with a stronger defence system or not.

A question which therefore remains to be asked is whether the resources used for the military could have been put to other uses which in the long run would be certain to save more lives than our military preparedness could imply. Since Norway now has about 4,1 million inhabitants (1980), could for instance the military budget have been used to buy food for this many people? A brief look at the data for the Norwegian military budgets during 1875 to 1975, converted to potato equivalents, tells us that the budget became counterproductive first around 1960, when the military budget could buy more food than the whole population could eat for the first time in history. In other words, since Norwegians already are well fed, we could have provided food for more than our own population, in 1975 for more than 5 million people elsewhere, if we had spent the money for food aid. The data are presented in Table 5 below:

**Table 5: Military expenditures converted to potatoes, 1875-1975.**

Year	Military budget* in current million Nkr.	1000 tons of potatoes** the budget could be used for
1875	8	100
1880	8	100
1890	10	250
1900	20	405
1910	20	345
1920	60	345
1930	40	520
1939	110	810
1950	355	1585
1960	1060	3530
1970	2770	4700
1975	4610	5420

\*Rounded off to the nearest 5 million after 1890

\*\*Rounded off to the nearest 5000 tons

(The idea to convert the military budget into potatoes came from Anders Helge Wirak)

Source: Historical Statistics 1978, CBS, Oslo.

In our reasoning, we have assumed that 1 ton of potatoes would suffice to keep one person alive for one year (3 kilos per day), which means that we are incurring structural violence to the tune of 5,4 million lives per year, due to our military expenditures, by depriving so many persons of that possibility.

Since structural violence is a form of conflict and is made possible through imperialism (see Figure 2), attempts by underdeveloped countries to liberate themselves from such dependency may eventually threaten our own security. So indirectly, our high military budgets should give us reasons for worrying about our long-run security.

If we look at survival needs in an enlarged perspective, a measure of how developed a society is could be the probability of remaining alive at different ages. The lower the probability of death, the more developed the country. A leveling out or, particularly, a consequent increase in death probabilities, while the material welfare of the population was still on the rise, could be interpreted as a sign of overdevelopment. We shall not reproduce all the data given by the Central Bureau of Statistics on death probability, but summarize some findings from the Historical Statistics given from 1871 on this subject, including data until 1976/77: For males the death probability declines throughout the whole period for ages up to around 40, although the decline is minimal for men over 20 after 1951-55. For the age group 50-90, the death probability is lowest in the 1950-60 period and slightly higher during the last years. The age-group 60-90 had the lowest chances of dying in 1951-55, while the figures show a significant increase in the death probability during the two subsequent periods. An exception must be made for the 90-year olds, who in 1974/75 had a very low death rate. For men aged 94 or above, the 1871-1880 period was actually the best: probabilities of dying increased to a peak in 1951-55, since declining, but not to the previous low level.

Females have lower death probabilities in all periods, and for all ages, than males. In general, their death rates keep declining, but at a marginal pace since 1951-55. The figures are lowest in the most recent years with one exception: a 20-year old woman had the lowest death probability in 1961-65. For very old ladies, the rates are still going down, but the gains for 94-year old women were negative in all years after 1871-80 except for the very last years (1976/77).

In general, then, the chances of survival at almost all ages has not improved much since the 1950's. Infant mortality rates have declined to a much larger extent than adult survival rates. Indeed, men who are above 50 may even expect an increasing probability of dying, and people who are really old today may be in a worse shape than the old of 100 years ago.

#### 5. Welfare needs.

It is quite clear that the level of material welfare has been increasing in Norway during the last decades. The market for most common consumer goods is now saturated, and increased sales can only be achieved through intensive marketing efforts, shortened product life and/or new product design.<sup>8</sup> But certain costs are also incurred in this process, which has involved large changes in infrastructure and industrialization, increased international trade and conversions to an industrial form of agriculture. This development has only been possible because of vast energy subsidies, bringing with it environmental destruction, pollution and scarring of the landscape. Since 1900, energy use in Norway has increased more than 10 times, and our large resources of hydro-electricity have given rise to a almost 10-fold rise in the consumption of electricity during the last 50 years. In 1979, total inland energy use was equivalent to about 30 million tons, or almost 8 tons of oil equivalents (toe) per capita,<sup>9</sup> topping the world list of the most energy-gluttenous nations.<sup>11</sup> In addition to this, the Norwegian merchant fleet consumed in 1977 almost 10 million toe per year<sup>9</sup> (down from 13-14 mtoe when prospects were brighter),

thus performing its duty to the international division of labor, or imperialistic practices of overdeveloped countries.

An indication of how much energy we need to cover welfare needs can be gained by studying energy availability in other countries which also have managed to secure basic welfare needs' coverage of their population. Countries like China, Cuba and Albania have eradicated outright misery with a per capita energy use of some 10 per cent of the energy which an average Norwegian is responsible for,<sup>12</sup> and these countries have in no way found ways in which to use energy with maximum efficiency. It should be added, though, that almost half of the total energy budget in Norway is in the hands of industry, where energy-intensive modes of production in 1977 disposed of more than 80 per cent of total electricity use but only 15 per cent of industrial employment. These industries also used about 40 per cent of all heating fuels, leaving a residue of 60 per cent of total industrial fuel consumption and less than 20 per cent of the electricity use for about 85 per cent of the industrial work-force.<sup>13</sup>

Although Norwegian hydro-power and North Sea oil enable Norway to maintain high levels of imports of agricultural products, machinery and a vast array of consumer goods, there are also large, often non-quantifiable costs involved in pursuing such energy and industrial policies. Hydro-electric power is a renewable source of energy, but not without environmental costs: large reservoirs of water destroy agricultural and grazing lands, change the natural flows of water, alter local climate and decrease the fertility of river banks and surrounding areas; moreover, recipient capacity of rivers is reduced, and there are adverse effects on the fisheries both inland and in the sea.<sup>14</sup> The consequences of burning fossil fuels are well known: acidic rains with the consequent negative effects on human health and plant growth, the emission of carbon monoxide, carbon dioxide (contributing to global heating of the atmosphere), outlets of noxious fluoride particles and gases, hydrocarbons and nitrous gases.<sup>15</sup> The North Sea oil exploitation involves routine oil spills and chances

of catastrophic blow-outs, probably much more detrimental to marine life than the Mexico blow-out, near the richest fishery banks in the world. Finally, our continued reliance on fossil fuels makes necessary future conversion to renewable, non-polluting sources of energy structurally more difficult, at the same time as we reduce the energy options for others, today and tomorrow.

We have dwelt so much on energy because our ability to convert energy from one form to another sets limits on how well or badly we can live. However, what counts is not how much energy we can use or how many products we can dispose of. Our concern is more with ends (such as good health) than with means (material production, including housing, medical services, means of transportation or communication). Accordingly, let us consider some data which shed light on our possibilities for achieving personal growth, or human and social development. Table 6, below, depicts the positive development of infant mortality rates during the last half century.

Table 6: Infant mortality rates, 1921-1977.

Year*	Deaths under 1 year of age per 1000 live births:				
	Total	Under 4 weeks <sup>1</sup>	4 weeks-11 months <sup>2</sup>	Legitimate	Illegit.
1921-25	51.7	22.1	29.6	49.4	82.8
1926-30	49.5	24.5	25.0	47.2	80.5
1931-35	44.9	22.5	22.4	42.5	76.8
1936-40	39.4	21.3	18.1	37.4	68.8
1941-45	37.3	18.4	18.8	34.5	71.2
1946-50	31.1	16.0	15.0	29.4	63.7
1951-55	22.6	13.1	9.6	21.7	46.9
1956-60	19.9	12.4	7.4	19.2	37.2
1961-65	17.1	12.0	5.1	16.7	26.8
1966-70	13.9	10.3	3.6	13.5	20.3
1971-75	11.6	8.4	3.2	11.0	17.5
1976	10.5	6.8	3.7	10.0	14.8
1977	9.2	6.5	2.7	8.8	12.5

\*Annual average for the five-year periods. 1) Before 1951, under 1 month. 2) Before 1951, 1-11 months.

Source: Statistical Yearbooks 1976-79, CBS, Oslo.



Infant mortality rates declined continuously during the period 1921 to 1977, when it reached 9.2 deaths per 1000 live births. The period of the most rapid decline, interestingly enough, was during 1951-56, but the periods 1966-70 and 1971-75 also showed significantly more rapid improvement than at other periods. One may also note that the death rates for babies 4 weeks to 11 months old show a much more marked decline than for babies under 4 weeks. The relationship between legitimate and illegitimate births' death rates has decreased over the period, the latter being about two-thirds higher than the former in 1921-25, but only 42 per cent higher in 1977, an indicator that "illegitimate" births now are gaining legitimacy.

The declining infant mortality rates during the last century has given rise to a drastically heightened life expectancy at birth, or a 44 per cent increase for males and females during the period 1891-1900 to 1976-77. However, most of the gain was achieved during the first half of this period, and the gain for older age-groups has been progressively less important. This can be seen from Table 7 below:

Table 7: Expectation of life in Norway, 1891-1977.

Age:	0		10		30		50		70	
	M	F	M	F	M	F	M	F	M	F
1891-1900	50.41	54.14	51.05	54.11	37.69	39.43	23.34	24.86	10.29	10.97
1901-10	54.82	57.70	52.92	55.08	38.85	40.24	23.95	25.30	10.59	11.24
1911-20	55.62	58.71	52.65	54.98	38.83	40.35	24.10	25.28	10.40	11.15
1921-30	60.98	63.84	56.27	58.35	40.39	42.14	24.41	25.87	10.63	11.40
1931-40	64.08	67.55	58.56	61.25	41.48	43.55	24.90	26.35	10.71	11.38
1946-50	69.25	72.65	62.63	65.24	44.22	46.29	26.43	27.95	11.43	12.03
1951-55	71.11	74.70	63.65	66.72	44.81	47.31	26.60	28.57	11.60	12.30
1956-60	71.32	75.57	63.50	67.30	44.57	47.74	25.21	28.84	11.38	12.36
1961-65	71.03	75.97	62.94	67.49	43.93	47.87	25.62	28.88	11.04	12.29
1966-70	71.09	76.83	62.69	68.10	43.61	48.49	25.32	29.47	10.87	12.83
1971-75	71.41	77.68	62.80	68.71	43.76	49.10	25.41	30.04	10.88	13.19
1975-76	71.85	78.12	63.05	69.12	43.98	49.53	25.55	30.39	11.00	13.57
1976-77	72.12	78.42	63.23	69.35	44.10	49.73	25.68	30.60	11.10	13.76

M = Males. F = Females. Source: Statistical Yearbook, CBS, Oslo.

The Table shows that for males, no significant increase in life expectancy at age 0 has taken place after 1951-55, and for all older age-groups males could expect to live longer in 1951-55 than during any later period. For females the picture is more positive, with increase for all ages throughout the entire period. It is also interesting to note that until the age of 10, the relative gain in life expectancy during the entire period was nearly identical for the two sexes. From 30 years of age, however, females have gained significantly more in life expectancy than males, a difference only being magnified with increasing age.

Table 7 gives a positive picture of the life expectancy for the newly born; on the negative side, especially for men, is the relatively meagre improvements during the last three decades. It remains to be seen whether recent changes in way of life for women in particular (increased job opportunities outside of home, combined with increased smoking frequency<sup>16</sup>) will make the life expectancy curves for males and females converge to a larger extent.

In Table 8, we have shown another positive result of the development of the Norwegian welfare state, indicated by the declining death rates for women giving birth during the last four decades. The frequencies can be translated into numbers, i.e., before 1946, more than 100 women died each year during birth; today, the deaths can be counted on one hand.

**Table 8: Maternal mortality in Norway, 1936-1977.**

Year	Maternal deaths:	
	Per 1000 births	Per 100,000 females at ages 15-49 years
1936-40	2.35	13.2
1941-45	2.32	15.5
1946-50	1.16	9.2
1951-55	0.74	5.8
1956-60	0.50	4.0
1961-65	0.22	1.7
1966-70	0.18	1.7
1971-75	0.08	0.6
1976	0.13	0.8
1977	0.10	0.6

Source: Health Statistics 1975 and 1977, CBS.

We also note that the mortality rates dropped quickly even after 1966-70, to less than half the rate in 1971-75. However, after the lowest point was reached in 1975 (0.07 and 0.05 were the respective figures), mortality death rates have actually increased slightly, indicating that further advances in this area may prove very difficult.

During the last few decades, many diseases which in the "old days" were more or less endemic, have almost totally disappeared. Among the more well-known diseases we have experienced the following improvements:<sup>17</sup>

1) Mortality from tuberculosis declined drastically from 1896 to the present. While many thousand people previously died each year from this disease, the total number today is reduced to a handful. From about 300 deaths per 10.000 inhabitants in the late 1890's, the yearly death rate has fallen to just over 2 per 100.000 in 1974. This figure is probably greatly exaggerated, because when older tuberculosis patients die from heart disease later in life, they still are recorded as dying from tuberculosis. New cases of tuberculosis today only seldom is a cause of death.<sup>18</sup>

2) Leprosy was endemic in Norway in the 19th century. In 1956, 2858 known cases were reported, but its decline was rapid - below 1000 cases were reported in 1890, below 500 in 1905, below 100 in 1925, and in 1948 only 16 cases were known. Today, leprosy is not even recorded in the statistics.

3) Notified cases of typhoid fever, acute poliomyelitis and diphtheria have more or less vanished during the period 1915-66. General vaccination against polio started in Norway in 1956, and reported cases are now down to about 2 per year from a widely unpredictably number (almost 1000 cases in 1936) a few decades ago. Vaccination against diphtheria was introduced in 1943/44, after a recent upsurge in reported cases had taken place, from a level of a few hundred per year before World War 2 to 22.700 in 1943.<sup>19</sup> The last 15 years have failed to produce any new cases.

4) Whooping cough, a disease traditionally affecting thousands

of new cases, mostly children, each year, used to claim about 50 lives per year. Today, <sup>the</sup> death toll is practically nil.

In general, improved nutrition and hygiene, better housing and clothing for people-at-large are seen as the major factors behind the large reduction in death from contagious diseases. Medical science seems to have played a minor role in the prevention of such diseases, with the exception of vaccination against smallpox and poliomyelitis.<sup>20</sup> Most of the gains recorded in terms of infectious diseases occurred before 1960 and improvements after this time have been almost negligible.

We have illustrated some of the positive aspects of present development patterns in Norway in the field of health. Are there any indications of costs associated with the material boom of the last decades? Among the more common diseases related to overconsumption we may cite heart diseases, cancer, tooth decay, obesity and diabetes. Being largely preventable, such diseases give rise to unnecessary deaths, but also of a high level of morbidity in the population at large. Table 9 below depicts the trend in the development of the most important killer in our society:

**Table 9: Mortality from Cardiovascular diseases, 1931-1978.**

Year	Deaths per 100,000 population	
	Males	Females
1931-35	269	288
1936-40	280	311
1941-45	236	267
1946-50	279	316
1951-55	358	383
1956-60	432	424
1961-65	503	459
1966-70	539	450
1971-75	554	462
1976	538	449
1977	533	440
1978	539	451

**Source; Central Bureau of Statistics, Oslo.**

The table shows clearly the sharp upwards trend in cardiovascular disease, especially for men, whose mortality rate was below that of women until 1956-60. Today, males have a 20 per cent higher death rate than women, while the upward trend seems broken for both sexes after 1975.

The statistics for cancer mortality rates as shown in Table 10 below shows a similar development as for cardiovascular or heart diseases, but with one important exception: The death rate is not slowing down, neither for men nor for women, during recent years. Mortality rates for males caught up with those for women after 1955 and are now about 20 per cent higher, or of the same order of magnitude as for the cardiovascular diseases.

Table 10: Mortality from malignant neoplasms, 1931-1978.

Year	Deaths per 100,000 population	
	Males	Females
1931-35	128	136
1936-40	135	141
1941-45	133	142
1946-50	147	153
1951-55	157	159
1956-60	166	158
1961-65	179	159
1966-70	193	171
1971-75	204	172
1976	220	184
1977	221	188
1978	226	190

Source: Central Bureau of Statistics, Oslo.

Of the 1978 cancer death rate of 226 per 100.000 population for males and 190 for females approximately 1/4 of all cases could be attributed to cancer of the stomach, intestine the mouth and oral cavity. For males, another 16 per cent of cases were connected with the wind pipe, the bronchial tubes and another 15 per cent with the prostate glands; women frequently experienced cancer of the breast (about 1/6 of all cancers) and the sexual organs (some 10 per cent), but

only had about five per cent of all cases related to the lungs.

It is some times said that people of today do not die of cancer, but rather die with cancer. This argument does not hold up very well for close scrutiny, however. In Norway, a recent study on cancer care predicts an average yearly increase in cancer incidence rates of three per cent per year, rising from 307 per 100,000 in 1975 to 404 in 1985 and 484 in 1990.<sup>21</sup> Only half of the predicted increase is believed to be due to the population getting older. If no major cancer cure breakthrough occurs within the next decade, prospects are that death rates from cancer for men and women will increase from the 1978 level of 208 per 100,000 to the order of 320, an increase of almost 60 per cent. In that case, cancer death rates will have reached the death rates from heart diseases during the early 1950's.

It is beyond the scope of this chapter to go deeply into the etiology of various diseases. However, we cannot overlook the unanimous opinion held today that the major causes of heart disease, cancer and many other ailments are related to the Dominant Way of Life in industrialized countries: Dietary habits, in particular the large intake of sugar, fats and the lack of fibers in the daily food intake, seem to be a major factor in heart ailments and some forms of cancer.<sup>22</sup> Industrial pollution and occupational exposure to carcinogenic substances also play a large role in the development of many types of cancer,<sup>23</sup> while cigarette smoking is pointed out as the major health hazard which people can do something about.<sup>24</sup> The role of dietary factors in relation to heart disease was clearly established during the Second World War, when both the consumption of sugar and fats (margarine and butter) fell drastically together with a large drop in death rates from heart disease.<sup>25</sup> And, of course, the rather obvious connection between a high sugar intake and poor dental health has been established a long time ago.<sup>26</sup>

A number of chronic diseases, as well as acute conditions, are related to nutritional factors. According to West German estimates,<sup>27</sup> diseases related to nutritional factors (mostly overnutrition) cost as much as 17 billion D-Mark in 1976, or two per cent of Germany's total Gross National Product that year. In the US, potential annual savings in nutrition-related costs, were in 1977 conservatively estimated to \$ 40 billion<sup>28</sup> amounting to at least \$ 35-40 for every man, woman, and child in just one year! Some of the nutritionally related diseases are listed in Table 11 below:

Table 11: Diseases triggered or favoured by overweight.\*

Diabetes  
Gout  
Myocardial infarction  
Stroke, cerebral apoplexie  
Hypertension  
Hyperlipemia  
Gall stone  
Arthritis of the hip and knee joints  
Disc disorders  
Hernia  
Varicose vein, thrombophlebitis  
Erysipel  
Menstrual disorders, sterility  
Post operative complications  
Pulmonary emphysema

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\*Based on Ernährungsbericht 1976, page 114.

Unfortunately, while statistics are quite well developed when it comes to causes of death, Norway does not have reliable statistics on chronic diseases. Death from diabetes occur with a frequency of approximately 7 per 100,000 population, but the number of people mildly or severely affected by this disease is probably of the order of a few percentage points. According to the mentioned West German report, diabetes affected only a few per thousand of the German population around 1900 - in 1976 at least three per cent were severely affected and probably as many as nine per cent were somewhat affected. Although comparable figures do not seem to exist for Norway, the differences in food habits and caloric intake (above 3,000 kcal per person in West Germany,

but slightly under 3,000 in Norway) and activity levels (the Norwegians are notorious for skiing and hiking etc.), enable us to guess that the true figures of Norwegian diabetes incidence rates are at the lower end of those reported in the industrialized West. According to Der Spiegel,<sup>29</sup> the range of reported frequencies lies between two and five per cent. In a large Norwegian health survey performed in 1975, 11,014 persons answered questions concerning their health.<sup>30</sup> Of these, only 0.75 per cent reported to be diabetic, a figure which may be somewhat low. However, the reported frequency of various chronic diseases was very high, as shown in Table 12.

Table 12: Chronic conditions at the beginning of the survey period,\* by diagnosis. Per 1,000 persons, by sex,\*\* in 1975.

Condition reported	Both sexes	Males	Females
All causes	688.6	630.7	744.8
Nervous conditions	72.8	49.4	95.6
Diseases of nervous system	47.2	39.2	55.0
Diseases of eye and ear	47.6	49.0	46.2
Heart Diseases	104.0	87.0	120.4
Diseases of respiratory system	58.0	66.3	49.9
Ulcer, etc.	30.1	39.6	21.0
Other diseases of digestive system	21.3	19.5	23.1
Diseases of genito-urinary system	32.3	19.7	44.6
Diseases of the skin	59.0	55.5	62.5
Diseases of the musculo-skeletal system	147.6	142.3	152.8
All other diseases and symptoms	49.6	37.0	61.9
Injuries	18.9	26.2	11.8
Number of respondents	11,014	5427	5587

\*Survey period lasted 14 days. \*\*Not including congenital conditions.  
Source: Health Survey 1975, p. 122-123.

It is interesting to note that women reported a higher incidence of chronic conditions than men. This may possibly be due to the fact that women live six years longer than men, and that many chronic conditions only develop late in life. For both sexes, however, one might think that the health situation leaves a lot to be desired. As many as 41.3 per cent of the sampled population had some kind of chronic disease. Adding the five per cent with congenital



conditions, one gets very close to half the population suffering from some chronic condition or other. Similar data from 1968, furthermore, indicate that people's health actually may be deteriorating. Table 13 below gives the comparison between the 1968 and the 1975 surveys with respect to all cases of illness (chronic and acute) at the beginning of the survey period, indicating that about 85 per cent of reported illnesses are chronic conditions. Since we do not have comparable data available for the two survey periods, we can only assume that the proportion of chronic illnesses remained the same. In such a case, the yearly growth rate of chronic illnesses among the population may be somewhat below one per cent, a figure, however, which should be used with caution.

Table 13: Cases of illness at the beginning of survey period.\*  
Per 1,000 persons, by sex. Health survey 1968 and 1975.

Diagnosis	Total:		Males:		Females:	
	1968	1975	1968	1975	1968	1975
Causes, total.....	758	804	729	745	785	861
Nervous conditions.....	62	78	48	54	75	102
Diseases of nervous system	34	51	30	43	38	58
Diseases of the eye.....	59	39	50	38	69	40
Diseases of the ear.....	51	27	57	30	44	23
Cardiovascular diseases...	64	106	57	89	71	122
Diseases of the respiratory system.....	97	76	98	86	96	67
Diseases of the digestive system.....	60	54	63	62	57	46
Diseases of the genital organs.....	8	15	6	10	10	20
Diseases of the urinary system.....	16	23	10	14	20	32
Diseases of skin and sub- cutaneous tissue.....	45	62	41	59	48	66
Diseases of the musculo- skeletal system <sup>1</sup> .....	128	174 <sup>1</sup>	114	169	140	179
All other diseases and conditions.....	74	72	71	56	79	87
Injuries <sup>2</sup> .....	60	27 <sup>2</sup>	84	35	38	19

\*Survey period lasted 14 days. 1) Direct comparable figure with 1968 is 149 per 1,000. In 1975 a number of late effects of injuries are registered under the morbid condition reported. 2) See note 1. Direct comparable with 1968 is 60 per 1,000 persons.  
Source: Health Survey 1975, p. 20.

Comparing Table 12 with Table 13, we can pick out those diseases that seem to be chronic for some people and those which may afflict people more at random, i.e. those diseases which have almost the same frequency of occurrence in both Tables. The most obvious cases are heart diseases, diseases of the digestive system and diseases of the skin, occurring practically only as chronic diseases, while diseases of the eye and the ear and of the musculoskeletal system seem to have the least chronic nature. To the latter category, of course, must also be included injuries.

Concluding from Table 12 and 13 it seems that about 55 per cent of the Norwegian population feels to be less than at full health, again an indication that Norway is not a well developed country, but somehow maldeveloped in this regard.

#### 6. Identity needs.

We remember from Table 1 that identity needs have something to do with belongingness, for closeness to other people, partnership with nature and for feeling of a meaning in life. In Norway, it is probably fair to say that most people score high on their contact with nature, although the urbanization process and increased industrialization and hydro-power constructions gradually are taking this very essential aspect away from many Norwegians. One reaction to alienation and lack of purpose in our society is to resign into complete passivity, or at the extreme end, to terminate one's life. Table 14 below indicates the trend in suicide rates in Norway during the last five decades.

Table 14: Deaths by suicide in Norway, 1931-1978.

<u>Year</u>	<u>Number of cases reported</u>	<u>Suicides per million population*</u>
1931-35	187	65
1936-40	198	67
1941-45	182	60
1946-50	215	67
1951-55	241	71
1956-60	255	72
1961-65	274	75
1966-70	295	76
1971-75	365	92
1976	433	108
1977	460	114
1978	473	117

\*Based on mean population of each period, calculated by the author.

Source: Historical Statistics 1978 and Statistical Weekly Report 49, 1979, CBS, Oslo.

We do not have available a breakdown of these data by sex after 1961-65, but up to this point the frequency of suicide for men was three to four times that of women. Although suicide data may not be entirely reliable (some suicides may be recorded as death by illness), Table 14 indicates a consistent increase in the suicide rate after World War 2. The increase is so large (nearly a doubling in 35 years) that there are grounds for believing that the mental health is deteriorating, although the evaluation of trends in the population's mental health is a difficult task. Not only are comparable data often lacking, but society's perception of what constitutes poor mental health may also vary. In some countries, for instance, the number of people held in mental hospitals may indicate more about the régime's way of dealing with dissidents than about the population's mental state. Recent public debates in Norway on the mental health care system have shown that some people

are detained in such institutions without actually being mentally ill, which means that more people are placed in such institutions than necessary. Many psychiatric patients could have been given help in their own environment by assistance of friends and relatives, but are instead placed in central institutions. Consequently, we will maintain that the number of beds and movements of patients in mental hospitals does tell us something about the extent to which identity needs are taken care of in our society.

Having first looked at the number of mental patients in hospitals, nursing homes and family care at the end of each year from 1935 to 1970,<sup>31</sup> we found this measure of little importance. Number of patients per 100,000 population actually declined by ten per cent during the period, something which could be due to more liberal discharge practices at the end of the year or to a quicker patient turnover. To ascertain what actually has happened, we shall take a look at figures on movement of patient population in mental hospitals, presented in Table 15.

**Table 15: Movement of patient population in mental hospitals.**

Year	Admissions:			Per 100,000 population*			Dis- charged patients
	First ad- missions	Readmis- sions	Total	First	Readm.	Total	
1950	1,571	1,253	2,824	48	38	86	2,445
1955	1,518	1,515	3,033	44	44	88	2,731
1960	2,173	2,544	4,717	61	71	132	4,406
1965	2,889	3,804	6,693	78	102	180	5,991
1970	2,948	4,418	7,366	76	114	190	6,829
1975	3,310	5,909	9,219	83	147	230	8,568

\*Calculated by the author. Source: NOS Mental Hospitals 1975, CBS, Oslo.

Table 15 gives a different impression of the development of mental disease since 1950 than figures on the number of patients being taken care of at the end of each year. The mental hospitals had an average patient population of around 8,000 during the 1950-75 period (8,500 in 1965 and 7,200 in 1975), but with a gradual decrease since 1965.

However, the number of patients per 100,000 population that were first admissions actually increased by 75 per cent, while readmission figures showed nearly a quadrupling in the 25-year period. We also see that the number of patients being discharged during the period went up three and a half times. In other words, more mental patients seem to have relapses during later years, while hospital beds have a larger turnover. One explanation for this situation is the increased use of psychoactive drugs, both inside and outside of hospitals, thus permitting more people to "function" in society, even if they have mental problems.<sup>32</sup> Table 13 shows that more people in 1975 considered themselves to have nervous problems than in 1968, with an increase from 62 to 78 per 1.000 persons with "nervous conditions". And based on figures given in Table 12, we may calculate that about 93 per cent of the nervous conditions were chronic, indicating that when people first have developed mental problems, it tends to last for a long time.

In the Health Survey 1975 some 14 per cent of the respondents reported to have been told at some point in their life by a doctor that they suffered from nervous or psychological problems (almost 11 per cent of the males and 18 per cent of the females). Slightly less than seven per cent of the respondents claimed to have experienced nervous or psychic problems during the two-week survey period, while almost one fourth of all people over 16 had taken medicines or drugs for the nerves at some point in time.

Several studies on mental health in Norway confirm the sad state of affair. One study was publicized in 1973,<sup>33</sup> where an analysis and a classification of the mental health among 352 junior high school students in Oslo was compared with 101 students in a small district in the countryside. The study concluded that almost 20 per cent

of the Oslo youth and nearly eight per cent of the Skogdal youth had a "poor mental health". A similar study was in 1977 contrasting people's mental health in Oslo with that in a small rural municipality.<sup>34</sup>

It was found that 8.6 per cent of the of the interviewees in Oslo had psychiatric problems at the time of the interview, while the rural sample showed a 3.8 per cent frequency. Respectively, almost 15 per cent and six per cent reported symptoms of a psychiatric character at some point in their lives. Nils Rettersdøl, a well-known Norwegian psychiatrist, describes the Norwegian population's mental health in the following terms:<sup>35</sup>

Approximately one per cent of the population will develop schizophrenia during their life-time, six to seven per cent will suffer from psychoses, 10-20 per cent will become neurotic, and about one third of the population will be in need of psychiatric attention. Another indicator of poor mental health is that about 36 per cent of all patients in Norwegian hospitals during the mid Seventies were in psychiatric health institutions.

According to Dr. Assen Jablenski,<sup>36</sup> Mental Health Division of the World Health Organization, research has shown that there has been a marked increase in the frequency of neuroses in Scandinavian countries. Barely a few per cent of the population suffered from neuroses at the turn of the century, a figure which today is estimated at up to 20 per cent. Our guess is, however, that the measured incidences of poor mental health only represent the tip of the iceberg. Probably, most people are at some time or other depressed, are feeling insecure and lonely; many are playing with the idea of committing suicide or experience lack of a sense of purpose in life. Many such cases will clearly never be recorded as mental disturbances, and today it may even be that such feelings may be considered a normal part of everyday life. But this in itself is an indicator that Norwegians do not score very high on the satisfaction of identity needs, that we are becoming an alienated people with increasingly serious mental problems.

7. Freedom needs.

The subject of freedom is probably the most complicated on our list of needs categories, because freedom is hard to quantify with relevant indicators. Some choices we wish to make are much more important than others (choice of way of life, choice of occupation, of place to live and of life partner(s) being more important than choice between almost identical consumer goods), but these choices are often not made explicit. Such choices are understood, are part of the structural and cultural make-up of society. Also, choices available may be too numerous for us to make rational decisions, or we may not have complete awareness of all possible options, so that we become victim of other people's manipulation to choose things in their interest.

Compared to many other countries, Norwegians enjoy a great many freedoms. We may choose among a number of different channels for receiving and expressing information and opinion. Newspapers, periodicals, books, lay and professional magazines of nearly all kinds are freely available in public libraries throughout the country. In 1978, there were 1394 such libraries spread throughout the country, or less than 3,000 people per library<sup>27</sup>. Money allowing, one may buy almost any book or other publication in any language. Excepted is only hard pornography, literature encouraging illegal practices (such as how to make your own hash supply) or matters being related to issues of "national security". It should be mentioned, though, that the information available to the public on military issues is rather limited and that the release of "sensitive information" is far stricter in Norway than for instance in the United States. But as such issues are not a central concern except for a small, politically active minority, most Norwegians consider our freedom in this area to be rather complete.

People's freedom to communicate with each other has also been greatly expanded by the spread of the telephone. However, the telephone service in Norway is expensive, and only about

57 per cent of all private households had installed a telephone in 1977.<sup>8</sup> In contrast, 67 per cent of all households had a private car, reflecting rather well the lacking insight into which choices count the most in a resource-scarce world by the Norwegian leadership. It should be added that the capacity to install new telephones in 1977 was as low as 56,000, while car sales the same year reached an all-time high of 145,000, thus further restricting the freedom to play in the streets for the young or to breath fresh air for us all.

Few restrictions exist within or without the country when it comes to travelling - freedom is only limited when it comes to visiting military installations, and, of course, by economics. In principle, Norwegians may engage in political or religious activities of their choice, live where they want to, marry a partner they like, and buy almost any imaginable consumer goods. However, some limitations to choice do exist. Most of the population is registered members of the Lutheran State Church<sup>38</sup>, and all schools have mandatory Christian education. Accordingly, a considerable conformity-pressure exists regarding what faith people should choose. The religious influence imposes strict limitations to the way of life in some West Coast communities, where the sale of alcohol is forbidden, and public dancing arrangements for young people are regarded as "sinful". However, the Church did not manage to stop the recent liberation of the abortion law, now leaving the choice of whether or not one should give birth to the mother instead of the previous commission of doctors. Also, the trend towards non-membership in the State Church is on the rise, giving hopes for more plurality in choice of religion or other systems of thought in the future. In the schools, there is now the possibility to choose human ethics instead of Christianity, although parental passivity and formal obstacles have prevented a large contingent of students to opt out of the present religious teachings. It should be added that the Norwegian broadcasting system is a state monopoly, where the official religion is given ample sending-time. We may choose from



only one TV channel and two Norwegian radio stations, where especially the national television is rather careful when presenting controversial issues to the public.

It should be mentioned that Norway also has a censorship board for entertainment films. A long-dormant blasphemous-paragraph was recently invoked, banning the rather innocuous British comedy "The life of Brian" and the Swedish anti-narcotic movie "A decent life". The former was banned because it indirectly attacked the Church, the latter because the censorship considered it to be too instructive for potential drug addicts.

In conclusion, we must say that people's freedom needs are relatively well met in Norway, compared with most other countries. An important aspect of the possibility to make free choices has been the significant rise in people's real incomes, coupled with a relatively high level of education, which, incidentally, is based on a public, tuition-free system. But in practice, it takes more than money and education to break out of the relatively conformist Norwegian way of life, especially since industrial growth and technological imperatives limit people's choice of such essential goods as clean air and water and recreation areas. Likewise, the Norwegian membership in such organizations as NATO and the International Energy Agency or OECD are not based on people's choice, for instance expressed in referenda, but on technocratic rule. It remains to be seen whether the Norwegian people will remain content with the relatively high level of freedom now perceived by most people to exist or if they will stand up and fight for another structure which will allow a more pluralistic and diverse nation to develop in the future.

#### 8. Conclusion.

This chapter has only scratched the surface when it comes to evaluating positive and negative aspects of the dominant ways of life in Norway. However, we feel that we have been looking at sufficiently many aspects that an overall picture

of a country somehow having surpassed an optimum level of development becomes evident. In sum, we feel that Norway can be said to be an overdeveloped country, where material things are overabundant, while many non-material aspects of life are lacking. Relating back to Figure 1, where we have depicted the relationship between level of development and material production, we would place Norway on the right-hand side of the graph, being maldeveloped in the sense of being overdeveloped. If we should approximate some dates onto this curve, we would probably put 1930-35 as the beginning of the sufficiency level and 1965-70 as the end of the development period. Thus we would date the beginning of overdevelopment around the beginning of the 1970's, while, relatively speaking, our most developed period probably could be said to have been around 1950-60. However, Figure 1 is not a time-scale, meaning that we again may lead our society towards a new high point above the present curve some time in the future.

But what are the chances of escaping continued overdevelopment? Many of the trends examined in the lack of human needs satisfaction are rather discouraging. However, there are some bright spots, for instance reflected in stagnating death rates for heart disease and decreasing smoking frequency for men. And one significant force behind the turning around of the disconcerting trends are the many alternative ways of life movements analyzed by GPID Project members. These forces are important in Norway, coinciding with what seems to be a loss of vision by the ruling élites. Even if we still have groups of people in Norway who are lacking in material needs satisfaction, the general picture is one of increasing feelings of saturation, of rejection of further climbing up the ladder of material consumption. With the quest for a simpler life-style, the alternative movements give us some hope that it one day will be possible to bridge the gap between those having too little and those having too much, in a common search for human and social development for all.

9. N O T E S:

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1) The development concepts presented here have been emerging during the work in the World Indicators Program under Johan Galtung, former Professor in Conflict and Peace Research at the University of Oslo, and carried further into the development thinking within the GPID project.

2) For a discussion of the concept and theories of overdevelopment, see Poleszynski (June 1977).

3) See Galtung, Poleszynski and Wemegah (May 1979).

4) Illich (1977) was the first to introduce a comprehensive study showing the negative aspects of overmedication.

5) On the problems of inequality and automobility, see Illich (1975).

6) The figures here presented are taken from Statens Ernæringsråd (1979).

7) Figures are taken from OECD (1976).

8) The problems following market saturation from point of view of the producers have been discussed by Poleszynski (September 1979).

- 9) Figures are taken from The Ministry of Oil and Energy (1980).
- 10) Figures are calculated on basis of statistics given in Dagbladet, February 1, 1980.
- 11) Official estimates of per capita energy use are about 30 per cent lower, as the high-quality Norwegian electricity production is converted to oil according to its caloric heat value. Taking account of the 65-70 per cent losses incurred in thermal power plants, I have used 1 TWh<sub>e</sub> (billion kilowatt hour) = 0.28 million toe, instead of the heat value of 0.086 mtoe per TWh.
- 12) This claim is discussed by Poleszynski (1977).
- 13) The figures are calculated by the author on basis of statistics published by the Central Bureau of Statistics in Oslo.
- 14) See Norges Naturvernforbund (1979) for a discussion of the environmental effects of hydro-power production or of other energy uses.
- 15) Waldbott (1978) is a key source in understanding the health effects of energy conversion in industrialized societies.
- 16) From 1976 to 1978, Norwegian surveys show that the proportion of women who were daily smokers increased from 35 to 37 per cent, while the figures for men declined from 53 to 43 per cent, according to the National Association Against Cancer (1979).
- 17) If otherwise is not indicated, the figures reproduced in the following have been taken from Historical Statistics 1978 or from Statistical Yearbook, Central Bureau of Statistics.
- 18) According to Dr. Hans Th.Waaler in comments to draft of the present paper.
- 19) A historical perspective on medical advances in Norway during the recent 50 years is given by Anton Jervell in Norsk Medisinaldepot (1976).
- 20) This point was stressed by Waaler and is amply elaborated by Illich (1977).
- 21) Ministry of Social Affairs (1978).

22) According to U.S. Surgeon General (June 1979), "Most serious illnesses - such as heart disease and cancer - are related to several factors. ...among them, cigarette smoking, poor dietary habits, severe emotional stress - increase probabilities for several illnesses." The connection between a fiber-deficient, sugar-laden diet and many kinds of illnesses is extensively documented by Cleave (1975), by Dufty (1975) and by Bruker (1978).

23) Epstein (1978) is a key source in this respect, but also Waldbott (1978).

24) The most comprehensive documentation of the negative health effects of cigarette smoking is found in the gigantic book Smoking and Health by the U.S. Surgeon General (January 1979).

25) New Scientist, 6 May 1976.

26) See Cleave (1975), Dufty (1975), Bruker (1978) and U.S. Senate (December 1977).

27) Deutsche Gesellschaft für Ernährung (1976), p. 105.

28) U.S. Senate (December 1977), p.2, gives a breakdown of estimated costs of dental diseases, diabetes, cardiovascular diseases, alcohol and digestive diseases. In addition should be counted costs related to cancer, kidney disease due to mismanagement of hypertension, long-term costs associated with low birthweight babies due to maternal malnutrition etc.

29) Der Spiegel (1976), p.74.

30) Central Bureau of Statistics (1976).

31) Central Bureau of Statistics (1975).

32) Norsk Medisinaldepot (1980).

33) Lavik, Nils Johan (1976), p.34.

34) Dalgard and Sørensen (1977).

35) See Rettersdøl (1975 and 1977) for further reference.

36) Personal communication to the author, April 1980.

37) Central Bureau of Statistics (October 1979).

38) According to Central Bureau of Statistics (October 1979), p.17, 94 per cent of the Norwegian population were members of the State Church in 1970. Census results from 1980 are not yet available, but recent years' increasing trend for non-membership will probably have reduced the national figure by a couple of percentage points.

10. LITERATURE

1. Bruker, M.O.: Krank durch Zucker. Der Zucker als pathogenetischer Faktor, Helfer Verlag E.Schwabe, Bad Homburg v.d.H., 7.Edition 1978
2. Central Bureau of Statistics: Health Survey 1975, Oslo 1976
3. Central Bureau of Statistics: Social Survey 1974, Oslo 1975
4. Central Bureau of Statistics: Statistical Yearbook 1979, Oslo, October 1979
5. Cleave, T.L.: The Saccharine Disease, New Canaan, Connecticut 1975
6. Dalgard, Odd S.: and Sørensen, Tom: "Mimeo from Institute of Psychiatry", University of Oslo, 1977
7. Der Spiegel nr. 44, 1976: "Diabetes: Grösste Epidemie der Menschheit."
8. Deutsche Gesellschaft für Ernährung. e.v.: Ernährungsbericht 1976  
Frankfurt a.M., 1976.
9. Dufty, William: Sugar Blues, Warner Books, New York 1975
10. Epstein, Samuel: The Politics of Cancer, Sierra Club Books San Fransisco, 1978.
11. Galtung, Johan, Poleszynski, Dag, Wemegah, Monica: "Alternative Ways of Life ", Society for International development (Rome) and UNU/GPID, Geneva May 1979.
12. Galtung, Johan et al.: Norge i 80- og 90-årene (Norway in the '80's and the '90's (working title) Gyldendal Norsk Forlag (forthcoming) Oslo 1980.
13. Illich, Ivan: The Limits to Medicine, Pelican Books, London 1977.
14. Illich, Ivan: Energy and Equity, Caldor & Boyars, London 1975
15. Landsforeningen mot kreft: (The National Association against Cancer): Mot Kreft (Against Cancer) No. 1, 1979
16. Lavik, Nils Johan: Ungdoms mentale helse (Youth and Mental Health), University Press, Oslo 1976

17. Ministry of Oil and Energy: St.meld. nr.54 (1979-80)  
Norges framtidige energibruk- og produksjon.  
(The future energy use and consumption in Norway)  
Oslo, 29 February 1980.
18. Ministry of Social Affairs: NOU 1978:38 Kreftomsorgen i Norge  
(Cancer Care in Norway), Oslo 1978.
19. New Scientist, 6 May 1976
20. Norges Naturvernforbund: Energi, miljø og samfunn  
(Energy, Environment and Society), H.Åschehoug & Co. Oslo 1979
21. Norsk Medisinaldepot: Yearly Report, Oslo 1976
22. Norsk Medisinaldepot: Legemiddelforbruket 1976-79  
(The Drug Consumption in Norway), Oslo 1980
23. OECD: "Energy Conservation in the IEA 1976 Review", Paris 1976
24. Poleszynski, Dag: "The Concept of Overdevelopment:  
Theories, Causalities and Indicators", Papers No.53,  
Chair in Conflict and Peace Research, University of Oslo,  
June 1977.
25. Poleszynski, Dag: "Utskiftninger i Markedet og Tendenser  
i Produktutviklingen", (Changes in the Market and Tenden-  
cies in the Development of Products), Melding nr. 52, The  
State institue for consumers research, Bekkestua, Norway,  
September 1979.
26. Poleszynski, Dag: "Waste Production and Overdevelopment,  
An Approach to Ecological Indicators", Journal of Peace  
Research No.4, Vol XIV, 1977.
27. Rettersdøl, Nils: Menneskesinnet (The Human Mind) and  
Kriser i menneskesinnet (Crises in the  
Human Mind), Cappelen Forlag, Oslo 1975  
and 1976.
28. Statens ernæringsråd: Årsmelding 1978 og rapport om mat-  
forsyning i Norge. (Yearly Report 1978 and report on food  
supply in Norway), Oslo 1979.
29. US Surgeon General: Healthy People. The Surgeon General's  
Report on Health Promotion and Disease Prevention,  
US Department of Health, Education and Welfare,  
US Government Printing Office, Washington D.C., June 1979
30. US Surgeon General: Smoking and Health, US. Government  
Printing Office, Washington D.C., January 1979
31. US Senate: "Dietary Goals for the United States second edition"  
Select Committee on Nutrition and Human Needs. US Government  
Printing Office, Washington D.C., December 1977.
32. Waldbott, Georg L.: Health effects of environmental pollutants,  
2nd edition, The C.V. Mosby Company, St. Louis, Missouri 1978.