

Netherlands Scientific Council for  
Government Policy

# Government and Future Research

Summary of the Thirty-fourth  
Report to the Government

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*2<sup>e</sup> EXEMPLAAR*

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## PREFACE

This report provides an overview of the future expectations as they are found in future research conducted under the auspices of the Dutch government. The full Dutch report consists of two parts. Part 1 – which forms this translation – examines the background to the survey and the way in which it was tackled. A number of general findings are then presented in relation to the studies examined. Finally a number of recommendations are made in relation to further future research. Part 2 (which has not been translated) consists of the survey as such.

The report was drawn up in consultation with the Future Research Forum, a body specially appointed by the WRR and consisting of representatives from the government agencies responsible for the studies examined in the survey. The membership of the forum is shown in annex 1. The Council is indebted to the members of the forum for their assistance in compiling this survey. The results of the often stimulating discussion have been widely incorporated in the text. The Council remains, however, ultimately responsible for the content of the report.

## 1. THE DIFFUSION OF FUTURE RESEARCH

Interest in prospective research and planning increased sharply in the Western world during the 1950s. This interest, stimulated by the growth in population, economic and technological change and numerous other social shifts, was not something new; from the 18th century onwards, the challenge of the future and the ambition to order society along structured lines form recurrent themes. Europe and the United States have a lengthy tradition of pioneering academic studies, social debate and experiments in the field of planning and prospective thinking. This tradition was picked up again after the Second World War. Concrete contributions were made in this period by the defence sector, agriculture and private industry, the former and latter of these in a line stemming directly from the Second World War.

It was in this climate that 'think-tanks', simulation and gaming projects, institutes for future research, experiments with programming, planning and budgeting, and strategic thinking saw a spectacular growth. This occurred partly in the private sector, but a gradual expansion also took place in the government sphere, where this kind of 'active' thinking was consistent with the expansion and the higher profile of the government in the 1960s and 1970s.

This formed the background to the changes that took place in the world of planning bureaus and institutes of future research in the Netherlands in the early 1970s. Among other things, this period saw the establishment of the Scientific Council for Government Policy (WRR), whose terms of reference included the provision for government policy of scientifically sound information on developments which may affect society in the long term.

The Parliamentary debate of the WRR Bill of Establishment strongly emphasized the Council's independence in relation to the government. The Act of Establishment accordingly spoke of the provision of information 'for government policy' instead of 'for the government' as provided for in the Bill. Contrary to the recommendations of two committees that reported before the WRR was set up, the Council was not given a formal place in the planning apparatus of government<sup>1</sup>. Along the same lines, the Council is required to furnish scientifically based information, instead of – as had been proposed – drawing up an image of society in the future with a view to policy planning in the longer term.<sup>2</sup>

Apart from the Council there are also a number of other bodies concerned with future research, if at a somewhat less general level. Particularly important are the planning bureaus – the Central Planning Office (CPB), the National Physical Planning Agency (RPD), the Social and Cultural Planning Office (SCP) – and the Central Bureau of Statistics (CBS). A number of ministries also have future-research units, including the Ministries of Foreign Affairs, Justice, Education and Science, and Transport and Public Works. The widely diffused nature of future research

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<sup>1</sup>) *Rapport van de Commissie Voorbereiding Onderzoek Toekomstige Maatschappijstructuur* (Report by the Committee on the Preparation of Research into the Future Structure of Society (De Wolff Committee); Parliamentary Proceedings, 1970-1971 session, no. 10 914, no. 2.

*Bestuursorganisatie bij de kabinetsformatie 1971* (The Structure of Government upon the Formation of the new Administration in 1971), Report by the Committee on the Interdepartmental Division of Tasks and Coordination, The Hague, 1971.

<sup>2</sup>) H. Huisman and H. van der Sluijs, 'Toekomstverkenningen van de WRR. Planning of verkenning?' (Surveys of the Future by the WRR. Planning or Research?) In: Joseph van Doorn and Frans van Vught (eds.), *Nederland op zoek naar zijn toekomst*; Het Spectrum B.V./Intermediair, Utrecht/Antwerpen, 1981, pp. 239-246.

is characteristic of national government in the Netherlands. Such research is not, however, confined to the national government, but is also conducted by local government, private industry and non-profit organizations. In many cases the organizations concerned have built up a rich tradition and considerable fund of knowledge in the field of planning and future research.

This diverse pattern is of considerable importance when it comes to the further development of surveys of the future by the national government. For more than a decade now, surveys of the future have formed a standard element in policy preparation and the Council considered it important to survey the state of activity in this field. This would not only help fill a widely felt need for information, but would also help identify gaps and set out the background to differences and similarities in research methods and results.

This survey of studies of the future (ITV) undertaken by the Council is not a new survey of the future in the series of general surveys in this field previously compiled by the WRR. The aim is, instead, to outline the characteristics and results of recent future research in the Netherlands. The insight derived as a result can help indicate the activities that need to be undertaken in the field of prospective research, including by the WRR.

Before turning to the findings of the survey, a brief account is provided of the earlier surveys of the future conducted by the Council.

## 2. GENERAL SURVEYS OF THE FUTURE BY THE WRR

The General Survey of Future Developments (ATV) from the first Council term of office (1972-1977) was conducted by a committee of Council members and external experts, chaired by a member of the Council. This committee was charged with drawing up a coherent picture of the developments to be expected in the Netherlands in the long term. It did not set out to compile a comprehensive picture, in the sense of covering every aspect and sector, but to take a wide-ranging selection with a view to building up an overall picture of likely trends. This aim proved, however, difficult to realize. Lack of the necessary theoretical and empirical knowledge made it difficult to weld sectoral expectations into a consistent whole. This strengthened the subjective or inter-subjective nature of the choices made. Essentially, the result consisted of *images* of the future, i.e. subjective and time-bound expectations of the future. The final report, 'The Next Twenty-five Years', contained two scenarios: the A-variant, which was based on the assumed continuation of 3 percent annual economic growth, and the B-variant, which assumed a trend towards zero growth.<sup>3</sup>

The Policy-Oriented Survey of the Future (BTV) from the second Council term (1978-1982) sought to replace the implicitly subjective nature of the ATV by expressly incorporating the values and norms on which future scenarios are generally based. The future was viewed in the BTV not as an objective reality capable of determination by scientific means, but as the result of divergent action, based on a diversity of views about the type of future to be pursued. The outcome itself was regarded as unpredictable. Merit was, however, seen in assembling information on the consequences of such action.

The BTV may be characterised as a survey of the future based on ideal-type political value-orientations. The first publication, 'An Attempt to Challenge' (BTV-1), sought to elaborate a 'provocative model' based on Dutch circumstances, the aim being to stimulate social and political groupings to formulate alternative points of departure<sup>4</sup>. The model was derived from the OECD Interfutures project<sup>5</sup>. It was shown that this was a *relevant* scenario, in the sense that the political leaders of the major Western countries consistently reiterated their desire to work towards a future closely corresponding with that in the scenario. Major underlying assumptions in the scenario were a return to the post-war priority of economic growth and strongly market-oriented government policy.

As had been expected, the reactions to this scenario were predominantly negative; the need for alternatives was argued in many quarters. This is interesting, because the A-variant of the ATV, which closely resembled the scenario, aroused comparatively little debate. One explanation may be that what was presented in the ATV as an objective, plausible development was expressly presented in BTV-1 as a subjective picture of the future, i.e. not the future as it was *evolving* but as it was being *pursued*. Goals are apparently more liable to arouse debate than 'facts'. It is also interesting that the resistance towards this scenario and

<sup>3</sup>) WRR, *De komende vijftig jaar; een toekomstverkenning voor Nederland* (The Next Twenty-five Years. A Survey of Future Developments in the Netherlands); Report to the Government no. 15, The Hague, Staatsuitgeverij, 1977.

<sup>4</sup>) WRR, *Beleidsgerichte toekomstverkenning; deel 1: Een poging tot uitlokking* (A Policy-Oriented Survey of the Future. Part 1: An Attempt to Challenge); Report to the Government no. 19, The Hague, Staatsuitgeverij, 1980.

<sup>5</sup>) OECD, *Facing the Future: Mastering the probable and managing the unpredictable*; Paris, 1979.

the call for alternatives, which were so in evidence in 1980, had virtually disappeared a few years later. As we shall see, this view of the future had in the meantime become generally accepted. All this points to the changeability of future expectations.

Partly on the basis of these reactions, the final BTV report, 'Towards a Broader Perspective', reviewed the typology of value orientations. Alternative perspectives were elaborated for a large number of areas, indicating the consequences – including the policy implications – of acting on the basis of the various value orientations or so-called characteristic views.<sup>6</sup>

The experience acquired with the two general surveys of the future lead to the following considerations. Many users of future surveys expect that forecasts can be made that will not be too wide of the mark. Similar expectations are also often held in relation to future surveys on a less ambitious scale. The identification of future 'problems', for example, is based on the expectation that they can be predicted, and hence that the uncertainties surrounding the way in which certain phenomena will evolve can be reduced.

Forecasts are however always based on observations from the past and present time, and on the assumption of a certain continuity. Such continuity may be assumed at various levels<sup>7</sup>. At its simplest, it may entail a forecast that the present situation will not change. As a next step it may be assumed that certain identified trends will persist into the future. Finally it may be assumed that correlations identified in the recent past will hold good into the future. Breaks in the trend are not, however, easily incorporated in such forecasting. Theory-building in the social sciences only permits forecasts that hold under certain conditions<sup>8</sup>. This methodological analysis finds support in research into the accuracy of forecasting – which turns out to be very low – from which it is evident that the latter is primarily determined by the accuracy of the underlying assumptions<sup>9</sup>. The danger of drawing the wrong lessons from history is considerable.<sup>10</sup>

Another basic problem in predicting the future is that forecasts are necessarily made within a certain value framework. In the 1950s, when the Netherlands was still immersed in the process of industrialization, who would have predicted the environmental problems of the 1970s and – more to the point – found acceptance for their views? Much the same applies to the level of employment. In December 1977, the Council wrote, 'ten years ago, 80,000 was regarded as a high level of unemployment but now 150,000 is regarded as a (presumably unrealizable) target'<sup>11</sup>. In the light of the present unemployment of 665,000, one can only shrug one's shoulders at these figures. But even if it had been possible to foresee trends in this field with any accuracy at that time, it is highly questionable whether any forecasts along these lines would have been regarded as acceptable.

This relativization of the value of forecasts leads to another approach towards future research. The starting point in this case is that people and

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<sup>6</sup>) WRR, *Beleidsgerichte toekomstverkenning; deel 2: Een verruiming van perspectief* (A Policy-Oriented Survey of the Future. Part 2: Towards a Broader Perspective), Report to the Government no. 25, The Hague, Staatsuitgeverij, 1983.

<sup>7</sup>) WRR, *The Next Twenty-five Years*, *op. cit.*, pp. 29-30.

<sup>8</sup>) F.A. van Vught, *Beter dan Nostradamus en Campanella? Over de wetenschappelijke status van de sociaal-wetenschappelijke toekomstkunde* (Better than Nostradamus or Campanella? On the Scientific Status of Forecasting in the Social Sciences); Assen/Maastricht, 1985, p. 12.

<sup>9</sup>) W. Ascher, *Forecasting, an Appraisal for Policy-Makers and Planners*; Baltimore, 1978, p. 199.

<sup>10</sup>) E.R. May, *'Lessons' of the Past, The Use and Misuse of History in American Foreign Policy*; London, etc., Oxford University Press, 1979.

<sup>11</sup>) WRR, *Evaluatie Algemene Toekomstverkenning* (Evaluation of General Surveys of the Future); internal memorandum, The Hague, 1977, p. 29.

organizations base their actions on expectations of the future. In the case of government agencies, such expectations of the future form part of policy theory, i.e. the totality of assumptions underpinning a particular policy<sup>12</sup>. Although the future does not yet exist and cannot therefore be known, the quality of a decision can be improved by making future expectations explicit and by evaluating other potential trends. Under this approach, surveys of the future are always hypothetical in nature; on the basis of the knowledge available at the time, the best possible description is made of what could happen in the future given certain assumptions.

As a result the future course of developments is delineated more clearly. The uncertainties are not reduced, but an indication is provided of developments of potential importance for the goals of the forecast-user. The knowledge employed and the presentation of the research result will always be partial and selective. The choice of certain assumptions will among other things be determined by values and norms, including the policy goals referred to above.

By means of the instrument of future research, a scientific approach can therefore add valuable elements for decision-making. Although forecasters are also unable to detach themselves from prevailing opinion as to what is and is not important or obvious, they may be expected to be more highly trained than others in rendering these norms and values explicit. Under this approach, the success of a survey of future developments depends not on the accuracy of a forecast, but on its usability in decision-making. That usability may even mean that a forecast *fails* to come about because selective measures are taken.

Similarly the two general surveys of the future conducted by the Council attach greater importance to the implications for decision-making in the present day than they do to the accuracy of forecasts, in the sense of ultimately corresponding with reality<sup>13</sup>. For the purposes of policy preparation there is, however, a marked need for projections of future trends for use as starting points. As a result, the ATV was – against the Council's intentions – primarily used as a forecast. One reason for this may have been the fact that the ATV contained the expectations of a group of nationally recognized experts, thereby giving the impression that it contained scientifically-based forecasts.

The final BTV report – where no such misunderstandings could arise – was unfortunately published in a political climate where certain policy measures were regarded as inescapable. The political climate of the last few years has afforded little room for the notion that national problems could be tackled in radically different ways. The focus of attention was on restoring the health of the economy and the public sector, a return to market principles and distributing the burden. In these circumstances, alternative or more far-reaching perspectives are rapidly lost to sight. They even have the potential to impede the political and administrative implementation of the desired policies, since new information could constitute a threat to the consensus about the future on which the political and administrative action was based. People therefore screen themselves off from new information.<sup>14</sup>

The all-embracing nature of the two WRR surveys may also have counted against them. Policy-making is strongly compartmentalized, so that greater weight is attached to sectoral policies than to overall government policy. The need for general surveys of the future is therefore often downplayed. This is accentuated by the feeling that scientific insights are more reliable the more restricted the field of knowledge. In the case of general surveys of the future, by contrast, there is a need for wide-

<sup>12</sup>) A. Hoogerwerf, 'Beleid berust op veronderstellingen: de beleidstheorie' (Policy rests on assumptions: the policy theory); *Acta Politica*, vol. XIX, no. 4, October 1984, p. 493.

<sup>13</sup>) WRR, *The Next Twenty-five Years*, *op. cit.*, pp. 11-12.

<sup>14</sup>) De Man describes this phenomenon in relation to the use made of energy forecasts. R. de Man, *Energy Forecasting and the Organization of the Policy Process*; Eburon, Delft, 1987.



ranging, comprehensive knowledge; the aim is to discover how future trends in one field will affect developments in other fields. This means that insight has also to be obtained outside the specialist's normal field of knowledge.

Surveys of the future can be improved in scientific terms by spelling out the uncertainties and the normative choices that have been made. In this way the range of possibilities can be both limited and expanded. In so far as these choices depend on normative considerations, a choice will have to be made by groups within society, politicians and policy-makers. Surveys of the future can contribute by throwing light on the consequences of various options. It is important to bear in mind that expectations of the future are continually subject to change and changing attitudes.

The Council's interest in the present survey may be set against this background. The survey focuses on the assumptions on which the future studies are based, since it is evident that both would-be definite 'prognoses' and more speculative 'scenarios' consist of hypothetical pronouncements. In this respect it needs to be borne in mind that the predictive pretention will always play a role. Scenarios also lay claim to a certain verisimilitude: people do not act on the basis of future surveys that are regarded as patently unrealistic.

Given its terms of reference, the Council's main concern is with assumptions of a trans-sectoral nature. The main focus is on the assumptions employed in relation to developments in other fields when formulating forecasts in a particular field. For this reason, strictly 'sector-specific' questions, plus many technical aspects of forecasting, have been left out of account on the grounds that these go beyond the Council's terms of reference.

The plan of the survey is outlined in the following chapter.

### 3. SURVEY OF FUTURE RESEARCH (ITV)

As noted in Chapter 1, many government agencies regard it as part of their tasks to draw up a picture of future developments in their field. The main concern of this survey is with expectations about longer-term developments of relevance for government policy. In this respect a distinction has been drawn between expectations concerning the actual subject of the study in question, and expectations concerning developments in the external circumstances or 'setting' of that field. The longer the period covered by a study, the more important the expectations about the background setting become. Where the concern is with the short term, the relevant setting of the field in question can often be taken as given. Once developments are to be explored in a particular field in the somewhat longer term, however, the setting can no longer be taken as given. The social phenomena with which the government is concerned cannot be regarded as static. From the viewpoint of a particular field of interest, these phenomena develop autonomously or in mutual interaction. Compared with short-term surveys, long-term surveys are required to take greater account of the impact of background trends on developments in the field in question. In analysing future trends in leisure patterns for example, assumptions have to be made about trends in the size and structure of the population, the economy, income distribution, working hours and so on, and the relationship of these factors to leisure.

In the process, partial surveys of the future become semi-general in nature. In charting developments in the setting of their 'own' area, forecasters are required to operate outside their area of expertise, either by consulting other prospective studies or by formulating assumptions about developments in these areas.

Consulting other studies will not always afford a solution. The assumptions on which those studies are based may be unacceptable, or the spectrum of potential trends may be so great as to render the resulting complexity unmanageable. The necessary reduction in complexity can be achieved by assuming a 'generally accepted' trend but sometimes also by defining the setting in terms of objectives valid for the field of interest in question. In the case of education policy, for example, it might be advisable to proceed on the basis of demographic projections in which the decline in the proportion of young people was not particularly marked.

As noted earlier, this survey concentrates particularly on the way in which partial studies deal with the background setting of which they form part. This emphasis is consistent with the Council's supra-sectoral terms of reference. It is precisely the semi-general nature of many partial long-term studies that make a survey and a comparison interesting. It may be that expectations about certain future trends are highly congruent, but the reverse is also possible. In both cases a discussion of the background to the expectations held by the various parties is of interest. For this reason the present survey has been conducted in conjunction with a forum bringing together a number of the originators of the future studies examined in the ITV survey.

It was expressly not the purpose to achieve a consensus in the forum through discussion. There was, instead, an explicit recognition that it was by no means always possible to arrive at a definite, objective judgement about the probability of a particular trend. Numerous subjective factors also play a role in setting limits to the often considerable margins of uncertainty. Insight into these factors is more informative than a consistent, seemingly objective picture.

The survey was conducted along the following lines. Drawing on the available sources, chapters were written on the expected developments in the following twelve fields:

1. international developments;
2. demographic developments;
3. developments in the field of physical planning, housing and transport;
4. technological developments;
5. economic developments;
6. developments in the field of the environment;
7. developments in relation to marital and familial forms;
8. educational developments;
9. developments in the field of employment, social security and income;
10. developments in the field of leisure;
11. developments in the field of health and social services;
12. developments in the field of law enforcement.

Initially a chapter was also planned on developments in the field of politics and administration. No survey of the future was, however, available in this field, so plans for a separate chapter had to be abandoned.

The survey was in principle confined to up-to-date future research conducted on behalf of government policy. Judgement of the topicality of the results was left to the institutions by or for which the studies had been carried out. The criterion 'on behalf of government policy' means that the survey was confined to studies conducted under the auspices of the national government. Future research conducted by other bodies, such as companies, local government or non-profit organizations, is generally concerned with different aims.

In practice a number of other limitations were also imposed. Generally speaking, the survey of each of the twelve areas has been based on the most comprehensive source in terms of policy development. More specialized surveys or background material was also taken into account if their forecasts differed from those in the more comprehensive source. Finally the time factor also served as a constraint. The survey covers studies published since the publication of the BTV (1983) with a cut-off date of summer 1987. In a few cases, where the Council had access to preliminary versions of subsequently published studies, an effort was also made to incorporate the latest information.

The chapters on the twelve separate areas were discussed in draft form with the Forum, which met four times for this purpose. To facilitate comparison of the assumptions, the chapters have been drawn up along identical lines.

Such a comparison can be carried out in various ways. The sectors into which government policy may be divided form one another's environment or setting. The assumptions about future sectoral developments could therefore be compared with one another by examining the assumptions adopted in each of the twelve fields in relation to the remaining eleven. This approach was not adopted because the comparison would become too detailed, apart from which developments falling outside this classification would be lost to sight. A simpler classification, with the further advantage of consistency with the BTV, was used, based on particular aspects. This breakdown was as follows:

1. international developments;
2. demographic developments;
3. developments in physical planning, nature and the environment;
4. technological developments;
5. socio-economic developments;
6. socio-cultural developments;

7. political/administrative developments.

This classification is also consistent with the arrangement of many of the surveys themselves. Each of the studies surveyed was examined for its assumptions about future trends in each of these seven areas. A comparison then indicates the assumed developments in the international, demographic and other fields on which the studies are based.

## 4. FINDINGS

### 4.1 The institutionalization of future research

The studies of the future covered by this survey are listed in annex 2. They cover a wide field. The degree to which future research is an established element varies greatly: in some institutions there is a lengthy tradition of prospective research, while in others it is more ad hoc in nature. The institutions responsible for the studies may be classified as follows in terms of the extent to which future research is an institutionalized element.

#### 1. *Strongly institutionalized*

Futures research is strongly institutionalized in the following organizations: the Central Planning Office, the Central Bureau of Statistics, the Directorate-General for Housing and the Ministry of Transport and Public Works. These organizations have in common standardised approaches (such as models) that have been increasingly refined over the years.

Future research is also strongly institutionalized in the Scientific Council for Government Policy, the Social and Cultural Planning Office, the National Physical Planning Agency and the Ministries of Foreign Affairs and Defence, but here the studies are varied in nature, in terms of both the methods used and the subject matter. At the same time, this does not rule out standardised approaches. The Social and Cultural Planning Office for example has developed a standard method for estimating the impact of demographic trends on the public sector. This method is used for regular reporting on this subject.

#### 2. *In the first stage of institutionalization*

In a number of cases future research is carried out by newly established institutions, where it is the express intention that they should continue to carry out this work. Examples include the Future Research Directorate and the Scenarios and Future Research Bureau of the Directorates-General for Higher and Secondary Education respectively of the Ministry of Education and Science, the Steering Committee for Future Health Care Scenarios (STG) and the Netherlands Organization for Applied Technological Research (NOTA).

In certain instances, existing institutions explicitly take on this role, with the intention of regularly carrying out future research. This applies in the case of environmental trends to the Central Council for Environmental Protection, the Council for Environment and Nature Research and the Directorate-General for Environmental Control. In the labour market, the Organization for Strategic Labour Market Research (OSA) carries out similar work. Within the Ministry of Justice, the Scientific Research and Documentation Centre (WODC) has developed forecasting techniques.

#### 3. *Not institutionalized*

A number of surveys of future developments are conducted by or on behalf of committees set up specially to deal with a particular issue. Examples include the Drees Committee on Future State-pension Arrangements and the Dekker Committee on Technology Policy. Reference should also be made to the budget-review and evaluation committees, although these generally employ standardized methods.

Surveys of the future are also conducted on an ad hoc basis by existing

organizations. Examples include, the Interdepartmental Coordinating Committee on Welfare Policy, the Health Council and the Ministry of Social Affairs and Employment.

Finally it should be noted that the Central Planning Office, the Social and Cultural Planning Office, the Ministry of Social Affairs and Employment and the Ministry of Education and Science cooperate in the Education/Labour Market Forecasting Committee with a view to drawing up joint forecasts in this field.

## 4.2 Gaps

The survey of future studies fails to include all sorts of subjects where relevant prospective research could be conducted. The existence of such gaps does not, however, necessarily mean the absence of research. In a number of cases, studies in these areas had to be excluded from the survey since the results were not yet available. Future research is, for example, being conducted at the present time into women's rights and the development of the main cities. Nor was it possible to take into consideration the results of recently completed studies in the field of energy supply.<sup>15</sup>

Space does not permit all these missing subjects to be summarized. If, however, the developments foreseen in the various studies are classified in terms of individual aspects, a number of gaps show up. This applies especially to the international, technological, nature and the environment, political/administrative and socio-cultural aspects. These are briefly examined below.

### *International developments*

Although considerable weight is attached to international developments in the studies conducted by bodies outside the Ministry of Foreign Affairs, these trends do not generally play a prominent part in the surveys.

The future research that has been carried out by the Ministry of Foreign Affairs for some time now relates primarily to subjects of immediate relevance for foreign policy. Particular attention is paid to the military/strategic relationship between the super powers, a relationship regarded as virtually constant. International developments that might upset the status quo receive much less attention, as do potential developments in other fields of significance for the Netherlands. This may be attributed to the dominance of the military/strategic relationship in international politics and the general assumption that strategic change takes place only gradually. This does not eliminate the fact that recent developments in the Soviet Union call for a review of the relevance of the strategic balance for Western Europe and a reappraisal of the assumed pace of change. New surveys of the future might usefully take the further improvement in relations between the United States and the Soviet Union as their starting point with a view to stimulating thinking about the consequences and potential for Western Europe and the Netherlands in particular. Such a reappraisal is certainly important for Dutch policy. A range of policy reactions, both in the West and in Eastern Europe and the Soviet Union, could be examined in such studies.

Apart from possible changes in East-West relationships there are a number of other international developments that merit further consideration. This applies, for example, to the proposed completion of

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<sup>15</sup>) Krekel van der Woerd Wouterse. *Duurzame energie; een toekomstverkenning* (Lasting Energy: A Survey of the Future); Rotterdam, 1987.  
Energy Study Centre. *Nationale Energieverkenningen 1987* (National Energy Forecasts 1987); Petten, September 1987.  
General Energy Council. *Energie-onderzoek en lange termijn-energiebeleid; advies aan de Minister van Economische Zaken* (Energy Research and Long-Term Energy Policy: Report to the Minister of Economic Affairs); The Hague, November 1987.

the EC internal market in 1992, and the situation that will arise if this process proves incomplete. Many areas of government responsibility will be affected by this development, thus creating a demonstrable need for research.

Similarly the shift in the international economic centre of gravity to the Pacific Basin and within Western Europe towards the southern regions form important themes for further future research. The timely identification of Western Europe's potential marginalization in the world economy, and that of the Netherlands in the EC, is exceptionally important. Dutch economic development, town and country planning and also a derivative factor such as the planning of the highway network are all directly affected. Such processes do not have to be viewed solely as autonomous factors over which the Netherlands has no control. Attention may also be paid to the opportunities offered by such changes and to national and also supra-national solutions. Issues such as the economic potential of the People's Republic of China, the growing fundamentalism in the Islamic world and the 'Newly Industrialising Countries' could be examined for their potential implications for the Netherlands.

The open nature of Dutch society and the process of internationalization in many areas means that subjects such as those noted above deserve greater emphasis in new future surveys. Above all there is a need for more thorough research in a situation where there is widespread consensus about anticipated developments.

#### *Technological developments*

Like international trends, technological developments are widely regarded as a significant engine of change in present-day society. Buzz words such as the 'information society' or 'the current technological revolution' indicate a widespread awareness of quickening technological change, with far-reaching consequences. Whether such a technological leap is in fact taking place is not the essential issue. Once again this a subject which, given the potential consequences, has come in for surprisingly little attention. One reason, prompted by the lack of a coherent technological policy, is undoubtedly the absence of any kind of central overview. Only recently have organizational measures been taken to help identify technological trends. Such measures include the setting up of the Netherlands Organization for Applied Technological Research (NOTA), activities by the Ministry of Economic Affairs and the Ministry of Education and Science, and also by the Science Policy Advisory Council (RAWB) and the Central Organization for Applied Scientific Research (TNO).

But even if a better research infrastructure is developed, technological developments will nevertheless remain an awkward subject from the viewpoint of prospective research. Analytically, technological development is often depicted as a chain of decisions consisting of an indeterminate number of decisions, each with an uncertain outcome and unknown relative importance, which in turn affect highly divergent social categories whose inter-relationships are barely understood. Even if the scientific and technological basis for innovation in the coming decades were known at this point, the indeterminate nature of the process of implementation would make it difficult to chart the precise course that innovation will take. Technological innovation is, moreover, concerned with a multitude of disparate changes at micro level. The non-aggregable nature of these changes makes it difficult to draw general conclusions.

Seen in this light, it is not possible to draw up a general survey of technological developments as a whole. Instead, we find partial surveys at micro and meso level. Surveys purporting to be general are necessarily fragmentary in nature.

The impossibility of constructing an overall view of technological developments themselves applies *a fortiori* to their social impact. As a

result of these problems, many partial studies focus on the innovation process or on the social impact of individual technological developments. Limited studies in the field of technological development do not, however, need to confine themselves to one of these two but could also seek to integrate these frequently divorced research aspects. It would also be interesting to research certain general developments with an impact at industrial level. In this respect the discussion in the Forum touched on the continuing internationalization of technological knowledge and the application of such knowledge in marketable products. In addition it would be useful to draw up an evaluation of the constraints – legal, bureaucratic or managerial – in the decision-making process responsible for technological development. The role of the EC in this respect might, for example, be a subject for further study.

#### *Developments in relation to nature and the environment*

Developments in the field of nature and the environment generally receive little attention in surveys of the future. One factor would appear to be that only a small number of studies are specifically concerned with these aspects.

Until recently the provision of information on long-term environmental issues in the Netherlands was chiefly left to more or less ad hoc activities by scientists and environmental groups. The Committee on Long-term Environmental Policy Developments (CLAT) was not set up until 1981. The recommendation made by the CLAT in 1983 for the appointment of an independent committee of scientific experts on long-term environmental and nature issues<sup>16</sup> was implemented only recently, when the Central Council for Environmental Protection set up a committee along these lines in early 1988.

Since 1985, environmental issues have been dealt with by the Ministry of Housing, Physical Planning and Environmental Control in an annex to its annual indicative multi-year environmental control programme (IMP-M). The 1987-1991 IMP deals with climatic change, drought, the pollution of underwater bottoms, environment in the Third World and the indoor environment<sup>17</sup>. It was noted that the Council for Environmental and Nature Research (RMNO) would help in the identification of future environmental problems.

The Ministry of Housing, Physical Planning and Environmental Control is at present working on the development of a national environmental policy plan. This will be based on a broad long-term study. As a first step in this direction, the IMP referred to above has now been produced for a number of years. A provisional environmental programme 1988 was presented as part of the 1988 government budget. The First National Environmental Policy Plan is expected to appear in mid-1988. These activities may help gradually to plug the gap in relation to the provision of information on long-term developments in the environmental field.

#### *Political/administrative developments*

No separate surveys of future developments in the political/administrative fields are carried out under government auspices. Many of the studies in other areas, however, make assumptions in this respect, amounting in most cases to an expected 'withdrawal' by government.

Political/administrative developments are determined by three sets of factors. In the first place the system of public administration may be regarded as a formal category consisting of a set of rules, institutions and relationships, the development of which is, ideally, determined by the material demands made on that system. Research into the future of the

<sup>16</sup>) Committee on Long-term Environmental Policy Developments, *De lange termijn begint vandaag* (The Long-term starts Today) (main report); The Hague, 1983.

<sup>17</sup>) Indicative Multi-Year Environmental Control Programme 1987-1991; Parliamentary proceedings, 1986-1987 session, 19 707, nos. 1-2.



political/administrative system needs therefore to be preceded by surveys of trends in the fields of transport and communications, social security, income transfers, physical planning, and so on.

In the second place, however, the nature and intensity of government policy cannot be directly derived from future developments. The 'demands of the future' and government policy are separated by normative political judgements. Thus the 'withdrawal by government' anticipated in many of the studies would appear to be primarily an expression of the prevailing political climate.

Thirdly the political/administrative system has its own, internal dynamic, which, together with social needs and their translation into political action, determine the ultimate form of the system. Examples include trends in the development of the relationship between government and society, such as the privatization of the public sector or further bureaucratic specialization.

The studies covered by the survey emphasize the political desirability of a smaller public sector. That aim needs, however, to be confronted by material social demands tending towards a strengthening of the government apparatus and by general tendencies in the evolutionary process of public administration. This would help bring to light problems in the current endeavour to reduce the role of government.

A more penetrating analysis of political/administrative developments requires the concept of 'withdrawal by government' to be more precisely defined. The concept may, for example, relate to the size of the government budget or the bureaucracy, to the scale or intensity of government intervention and to the capacity to influence relationships and processes in society. Withdrawal in any one of these fields does not necessarily mean retreat in the others as well. Cutting back the government budget, for example, will often require radical intervention, thus giving rise to the paradox that withdrawal can be coupled with an intensification of government influence. A comparable paradox may also apply in specific policy sectors: a reduction in intervention in one area of policy may require more intervention in another.

In those cases where substantive policies lead to a reduction in central regulative capacity, the question needs to be asked whether a strengthening of that capacity may not be taking place at supra-national level or at decentralized level. Policy goals such as the environment or the economy may require a strengthening of supra-national policy.

Future studies tackling developments in this way can help qualify the current debate about the nature and place of public administration, a debate currently dominated by concepts such as market forces, the caring society, privatization and deregulation.

#### *Socio-cultural developments*

The socio-cultural field is equally short of comprehensive surveys of the future. Instead there are a number of ad hoc studies, in such fields as marital and familial patterns and household development. Surveys on others subjects also touch on future developments in the socio-cultural field. In many cases, however, these confine themselves to assuming that recent trends will persist. This reflects the difficulty of predicting the way in which values and norms are likely to develop, and also the lack of insight into the relationship with background factors. Only in a few cases are these uncertainties given expression in the form of alternative scenarios based on divergent values.

The empirical basis of such studies is frequently drawn from the work of the Social and Cultural Planning Office. Although the Office conducts a number of long-range studies, the main emphasis is on describing and interpreting current developments. This reluctance to become involved in future research, at least in the field of values and norms, is not surprising, for it is precisely in this field that the policy relevance is questionable. Even if it were possible to predict future values and norms with any

probability, it is questionable whether it would be possible to anticipate such developments in policy. Is it, in other words, possible to anticipate what society might come to regard as desirable goals? The answer can only be in the negative: policy must always forms an expression of selected prevailing norms and values. But normative attitudes are never homogeneous; there is continuous rivalry between groups with differing views. Future research can help bring to light the implications of the choices arising from that diversity and hence lend arguments to the normative debate. This was the procedure adopted by the WRR in its BTV survey. This is not the same thing, however, as attaching policy consequences to the future course of values and norms.

Surveys of the future could also pay greater attention to socio-cultural developments by examining the behavioral consequences of present values and norms. This indeed forms the main focus of most of the studies examined, but it applies to only a limited number of fields: population projections, the derivative forecasts for the demand for education places and the supply of labour, and household forecasts.

As such it is general behaviour, rather than the underlying pattern of values, that is relevant for future policies. To take an example, it is not so much the prevailing views on individualization that are important for housing policy, but the extent to which those views are reflected in household formation. If a survey of the future concentrates on behaviour as far as socio-cultural developments are concerned, other variables then also come into play. In the case of the examples noted above, economic factors and government measures play an important role. The pattern of values and norms is an important background factor, but then these are no longer exclusively 'socio-cultural' developments. Precisely because a social choice is at issue, a continuing trend need not always be assumed. Future research could make a contribution towards the discussion by indicating the consequences of various options, focussed on a specific field.

#### **4.3 Partial or semi-general surveys**

As noted in Chapter 3, an important assumption in drawing up the survey was that studies seeking to provide information on developments in the *longer-term* would be semi-general in nature. In tackling the longer-term, the environment or setting can no longer be regarded as an immutable fact and attention will therefore need to be paid to changes and their implications for the particular subject of study.

All the studies do indeed cover societal developments outside their own area. Surveys of the future in the fields of physical planning, transport and communications, leisure, health, environment and education are set against a particularly large number of background factors. The description of those factors generally contains both qualitative and quantitative elements. However, if one also examines the impact of these background factors on the path taken by the particular object of study, it is clear that a substantial reduction in complexity has taken place in many of these studies. Generally speaking only a few factors play an important part – not because the relevance of the remaining factors is discounted but because it is difficult to indicate, let alone quantify, their precise influence.

At the other extreme there are a number of studies of a highly specialized nature. In certain cases the research design is deliberately confined to a single relationship, such as a study of the impact of demographic trends on the use of selected government facilities. Alternatively, developments within the actual field of research may be regarded as more or less autonomous, as in the case of a study of changes in marital or familial patterns. Finally, the background setting may be radically simplified because relationships are unknown or unquantifiable. An example here is the estimated need for prisons.

In between these extremes there are surveys of the future that pay attention to a limited number of background factors. This middle category is easily the largest. A clearly identifiable group consists of studies based on computer models. Examples include demographic projections and forecasts of housing needs, and studies in the field of economics. The extent to which background factors are taken into account depends on the versatility of the models. Studies addressing a specific policy issue also frequently fall into this category, since it is then easier to select potential background developments in terms of their relevance.

#### **4.4 Convergence or divergence**

The semi-general nature of the partial surveys of future developments enables the respective expectations to be compared. This is a matter of the retrospective identification of convergence or divergence. Although the term convergence may generally arouse different connotations, its existence does not necessarily indicate the conscious mutual co-ordination of expectations about the future. The agreement could, instead, be a matter of coincidence or reflect the fact that the studies had drawn on the same source. The comparison will be solely concerned with establishing the existence of convergence or divergence, without exposing the underlying processes.

The analysis is confined to subjects covered in at least two studies, this being the minimum number for establishing agreement or divergence of view. Despite the fact that a number of studies are comparatively broad in nature, the number of subjects in respect of which assumptions are formulated in more than one survey only is fairly small. The selection of relevant background factors depends heavily on the actual subject of study. To take an example, technological developments of relevance for health care differ from those of relevance for leisure patterns. The existence of convergence or divergence is examined below in relation to seven subjects.

##### *1. International developments*

As previously noted, the studies examined – with the exception of those of the Ministry of Foreign Affairs – pay little attention to international developments. In addition the subjects covered tend to be rather diverse, so that there are only a few subjects that play a role of any significance in more than one study.

One of those subjects concerns demographic trends. The relative reduction in the size of the population in the Western world in relation to the Third World was touched on in a number of studies. An associated trend is the ageing of the Western population. Nevertheless it is not anticipated that this will result in greater migration from the Third World to Western Europe, including the Netherlands. This view was, however, challenged in the Forum. Immigration pressures on the West could increase as a result of global demographic and economic trends, while the means of resisting such pressure are limited. Moreover the ageing process in the West could lead to a greater willingness to accept immigration. The Forum regarded as realistic the possibility that the Netherlands would become a permanent country of immigration. The most recent population projections bear this out.

A second theme examined in a number of studies concerns the international division of labour. This is to a significant extent determined by demographic trends. The result of these trends is that the Third World has an abundance of labour, but lacks knowledge and capital, while in Western countries the reverse applies. As a result, Third World countries, especially the 'Newly Industrialising Countries' (NICs), will concentrate on the production of labour-intensive goods, while Western countries will specialize to an even greater extent in know-how and capital-intensive

goods. With the emergence of the NICs in Asia, a second concentration of economic activity will be established in the Pacific Basin.

The possibility cannot be ruled out that this process will see a new centre of the world economy. A peripheral position on the part of the EC can be prevented only by the further integration of the West-European market and by improved policy coordination between the European countries themselves and between the EC, the U.S. and Japan. As a result of the increase in scale necessitated by the high development costs of new products, the need for international cooperation between companies is also expected to increase.

Consensus exists about the development of trading relations between the Western countries, especially in Europe and the Eastern block. A very limited increase in trade and hence of traffic flows is anticipated; the quality of the Eastern European products and the differing economic systems will prevent any substantial growth. In the Forum discussion it was noted that these expectations were formulated before the current changes in the Soviet Union had got under way. A continuation of these changes in the long term could have far-reaching consequences, including for economic relations.

Finally a number of studies anticipate a further shift of economic activity within Western Europe towards the South. This entails the possibility that the Netherlands could gradually occupy a peripheral position in relation to the economic centre of gravity of Western Europe and the evolving infrastructure.

## *2. Demographic trends*

Demographic trends are subject of general consensus. Population trends are without question the key variable in current thinking about the future. Without exception, the studies draw on the population projections of the Central Bureau of Statistics. That demographic trends should form the key variable is hardly surprising; the population structure changes very slowly. At the same time, unexpected changes have taken place in major demographic variables in the past, with radical long-term consequences. Birth-rate trends, for example, remain the subject of major uncertainty. The CBS therefore works with variants, and in its 1984-2035 forecast – the forecast most widely used in the surveys examined – it notes that the calculations beyond the early 1990s should be regarded as a projection rather than a forecast. It is therefore all the more striking that nearly all the surveys of the future examined should have opted for the ‘middle’ of the three variants presented by the CBS – a choice for which reasons are rarely if ever given.

That uncertainty about demographic developments should be reduced is not in itself surprising. The CBS has itself done so by reducing the range of possibilities, within the general trend towards fewer young people and ageing, to three variants. The fact that the users of the forecast introduce a further simplification is often understandable in terms of the manageability of the survey in question. What is surprising, however, is that the simplification should always be in the same direction, for the interests that researchers have in demographic developments are not identical. Precisely where the uncertainty is marked, it might be expected that those interests would be reflected in the choice of possible demographic developments. In making these subjective choices many arguments may play a role: ‘the truth probably lies somewhere in between’, or ‘that’s what everyone does’, or ‘the median variant forms an acceptable basis for discussion for all concerned’. All in all, one reaches the conclusion that, despite the many uncertainties, the assumed demographic trends are regarded in many surveys of the future as a significant fixed point of reference.

### 3. *Developments in physical planning, nature and the environment*

Unlike population trends, the physical environment is not a matter of general concern. Apart from the surveys specifically concerned with this subject, little attention is paid to developments in the field of town and country planning, nature and the environment.

Nevertheless there are certain aspects in respect of which assumptions are formulated in more than one survey. With respect to transport and communications there is a generally held view that mobility will continue to grow substantially, even if economic growth is limited. At the most, mobility will be checked by congestion on the road. Despite the increase in traffic, the number of accident victims will decline. When it comes to physical planning, the distribution of the population and of industry are important variables. A number of studies assume that the distribution of the population will change only as a result of regional variations in births and mortality. This consensus implies that there will be no relocation of the population as a result of net migration. Differences of view do, however, exist in relation to the distribution of economic activity. Various studies, such as the background study carried out for the Second Transport and Communications Structure Plan, assume an unchanged regional distribution but a greater concentration in urban areas. The survey of long-term economic trends by the Central Planning Office, however, assumes a further concentration of industry and facilities in the Western conurbation. The concentration is also described in the Physical Planning Perspectives Memorandum, although it is not quantified.

This point was discussed in some detail in the Forum. On the one hand the view was held that a concentration of economic activity in the Western conurbation or *Randstad* would have a favorable knock-on effect in other parts of the country. This concentration could even help reduce congestion by means of improvements in public transport and traffic guidance systems. On the other hand the expectation was expressed of a more evenly distributed growth, facilitated by technological developments that reduced the significance of geographical separation. The limited ability to cope with further congestion in the Western conurbation is a further reason for exploring the scope for more evenly distributed growth in future research.

Generally speaking the development of the housing stock is the subject of consensus. The housing stock is expected to rise until the year 2000, although the rate of increase will decline and the trend will be reversed around the year 2010. This will also mean a relative decline in new construction and an increase in maintenance. At a less general level, differences of view do emerge: the precise figures tend to diverge. This is primarily related to the importance assigned to economic factors. Taken generally, the consensus may be attributed to the impact of demographic factors and the disagreement to differences of view about the influence of economic factors.

With respect to environmental trends, the expectations in various studies are cautiously optimistic. The economic studies, for example, assume that a certain degree of pollution control need not form an obstacle to high economic growth. The transport and communications background study provides figures to indicate that, despite the increase in mobility, emissions of acidifying and photo-chemical pollution will decline. The ability to control such emissions by technical means is also assumed in the environmental studies. The Physical Planning Perspectives Memorandum assumes that the quality of the environment can be improved in the long term, among other things by new technologies. Diffuse pollution – meaning the lack of any *really* clean areas – will however be exceptionally difficult to combat. Concern about diffuse pollution is also emphasised in the feasibility study for the province of Gelderland.

The WRR's report 'Scope for Growth' enters a number of qualifications with respect to environmental control. In the first place tackling the major causes of pollution does not always provide a guarantee that the ultimate effect on the environment will be nullified. In many cases there is no direct link between intervention and impact variables. Environmental problems may also be due to a whole range of causes, each too small to be tackled individually. This applies not just to emissions but also to physical intervention. A graphic example is the decline in the number of plant and animal species. Although the effect of individual interventions is barely quantifiable, the overall effect is clearly negative. Finally it is argued in 'Scope for Growth' that the quality of the environment is also affected by trans-frontier water and air pollution. National policies are unable to achieve a great deal by themselves.

Otherwise the environmental studies themselves are not particularly optimistic. The feasibility study for Gelderland, for example, comes to the conclusion that anticipated developments in soil use in the province will have a largely adverse effect on the natural environment. A scenario study into four environmentally-hazardous substances revealed that the proposed measures would not generally achieve the goals in question. Finally the Health Council's advisory report on the CO<sub>2</sub> problem contends that the greenhouse effect will have radical implications for sea-defences and water management within 50 years.

The Forum discussion also expressed greater concern about environmental trends. It was argued that the increasing level of environmental pollution could threaten the quality of life and cause higher mortality in the long term. The studies themselves had little to say about the ultimate effects of environmental pollution on health, the uses to which the environment was put, and nature and the landscape.

With respect to energy and raw materials expectations are generally optimistic. According to the long-term economic scenarios and the Transport and Communications background scenarios, the available sources of energy will not stand in the way of high economic growth or a sharp increase in mobility.

#### *4. Technological developments*

Many studies devote attention to technological developments. There is a widespread consensus that society will change radically in many respects as a result of these developments. Technology, it would appear, is seen as the prime mover of social change. Whereas in the past the potential negative consequences tended to be stressed, the attitude now is generally neutral or positive. It is accepted that the Netherlands cannot lag behind international developments. The resultant problems do not induce a negative attitude towards technology but instead the view that the process of innovation will need to be steered and guided as carefully as possible.

Easily the most attention is devoted to information and communications technology and computerization. The technological developments themselves tend to be discussed in very general terms; the main concern in the studies is with the consequences. These include:

- the saving of labour as a direct effect; ambiguity about the indirect effect on employment;
- higher training standards in employment;
- greater flexibility of the process of production and employment;
- increase in the scale of production to a global level;
- increase in employment from home;
- increase in entertainment facilities at home.

Considerable potential for advances in bio-technology are also foreseen, for example in agriculture and the food industry. This will result in rising productivity in these sectors, while consequences are also foreseen for the demand for energy and for environmental control. A number of environmental studies regard new techniques as the only way in which emissions of pollution can be reduced.

Finally medical technology comes in for attention in a number of studies. Although technological advances are expected to lead to health improvements, views differ as to whether this will significantly affect the mortality rate.

#### *5. Socio-economic developments*

At first glance economic developments appear to be the subject of disagreement. A number of studies foresee a generally low rate of economic growth in the longer term, while others anticipate higher growth. On closer inspection, however, there turns out to be a shifting consensus over time; older surveys are gloomier about the future than more recent ones. The survey by the Central Planning Office of the development of Dutch economy in the longer term, in 1985, probably marks a turning point towards greater optimism. This report works up three scenarios, in which the annual real rate of growth of GNP up to the year 2000 varies from 1.25 to 4 percent. The WRR's report 'Scope for Growth' examines the possibility of a growth scenario comparable with the Central Planning Office's high growth scenario.

It may therefore be said that the scope for developments analysed in the economic field has become larger and that there is greater optimism. A number of surveys drawing on the CPO study settle for the median variant, which assumes 3 percent annual growth in GNP. As in the case of demographic projections, there is a tendency to select the median variant. The CPO itself presents the three scenarios as an expression of the marked uncertainty surrounding economic developments and does not rank the scenarios in terms of probability. The tendency towards the median variant is, however, less marked than in the case of demographic projections. The uncertainty about economic developments manifests itself more commonly in the use of variants or generalized statements. Furthermore by no means all of the studies draw on the CPO scenarios, which accordingly occupy a less dominant position than the CBS's population forecasts.

The greater optimism about long-term economic developments probably stems from the economic recovery in recent years. Expectations of the future thus form a function of the current situation; the image of the future reflects the present.

There is also a broad consensus about the continuing high level of unemployment. A substantial decline is considered possible only in the event of high economic growth, as elaborated by the CPO in its high-growth scenario and by the WRR in its balanced-growth scenario. Only a somewhat older study by the National Physical Planning Agency (RPD) on leisure puts forward a solution, involving a drastic cut in working hours, in a scenario based on the notion of social 'solidarity'. Recent studies are based on a trend-based reduction in working hours of 0.5 percent a year.

Trends in the supply of labour are the subject of widespread agreement. Most studies make use of the CPO projection. Views differ, however, on the demand for labour. Because the overall growth in employment depends heavily on the level of economic growth, it is subject to the same uncertainties as apply to economic growth. In addition there are various other uncertainties, such as those relating to the distribution of the growth in employment. Of relevance in this respect is the process described earlier of an increasing international division of labour. A number of general points are the subject of consensus. Employment in the tertiary services sector, for example, is expected to remain at least equal. The assumed growth in employment in agriculture and manufacturing industry varies according to the assumed rate of economic growth, which is not consistent. The same applies to the non-profit sector, where assumptions about government policy play an important part. The uncertainty becomes even greater once the demand for labour is related to education level. Consensus exists concerning the trend towards a more knowledge- and capital-intensive economy in response to international developments.

Most studies see this as leading to a higher demand for well-trained labour. The relevant estimates vary widely, however.

No separate studies exist on income-distribution trends. In so far as these are taken into account as a background factor, it is assumed that the trend towards greater equality of income will be reversed as a result of the more flexible and decentralized negotiation of conditions of employment, whereby wage-differentials can more accurately reflect market forces and performance. The growth in the number of two-income families as compared with benefit recipients will also have an anti-equalizing effect. This phenomenon is absent only in the Housing Trends Report, which assumes a constant number of bread-winners per household and even a certain degree of equalization at low rates of economic growth.

#### 6. *Socio-cultural developments*

Socio-cultural developments are the subject of widespread consensus. It is generally assumed that currently discernible trends will continue into the future. The marked degree of consensus probably reflects the general nature of the assumptions; statements such as 'continuing secularization' or 'further movement towards women's rights' are less apt to produce differences of insight than expectations about the course of economic variables expressed in numbers and percentages.

The common views on socio-cultural change may be summarized as follows. The process of secularization will continue. The process of individualization, i.e. an increase in the need for self-reliance and independence, will generate a more diversified system in terms of household forms, life-styles and sub-cultures. These sub-cultures are not by way of vertical divisions in society; people belong to a number of sub-cultures, both at any one point and over time. Related to this cultural fragmentation is a trend towards a more anonymous society with a less hierarchical and more heterogenous system of values and norms. These factors will entail a reduction in social control, which in turn provides an important backdrop to the rise in crime, which is expected to continue.

At the same time, the process of individualization is not seen as ending up in individualism and hedonism. Against the background of a fairly static cultural context, the Social and Cultural Planning Office anticipates a strengthening of the work ethic. The Higher Education and Research Plan anticipates a trend towards 'utilitarianism', i.e. greater emphasis on tangible economic utility. This mentality is identified in the economic surveys as a major precondition for a resumption of economic growth.

Of these socio-cultural trends, many studies pay particular attention to individualization and women's rights. The meaning of these concepts tends however to remain vague. The meaning of the concept of individualization, for example, appears to depend on the context in which it is used. In the case of the PRIMOS households forecast it represents a trend to more one and two-person households, while both the National Physical Planning Agency's scenario study 'Growing Older in the Future' and its leisure scenarios define it as the opposite of 'solidarity'. In the former case, then, the concept relates primarily to mutual assistance, whereas in the second it relates mainly to the distribution of leisure. It is noteworthy that the National Physical Planning Agency studies do not simply depict a continuing trend but that the scenarios differ on this score. In those cases where the PRIMOS household forecast was adopted, a decline in individualization over time was assumed, whereas in other places in the same studies continuing individualization was assumed<sup>18</sup>. It is possible therefore that the consensus about individualization might be less general if the concept were to be defined more precisely.

Although 'women's rights' is also not generally defined, there would appear greater agreement as to what the concept means – even though it

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<sup>18</sup>) The PRIMOS model was developed with a view to updating the Housing Trends Report.



is not generally elaborated. The women's movement is concerned not just with the formal equality of men and women but also with the redistribution in practice of employment and power. This entails both participation by women in paid employment and participation by men in housework and bringing up children. The various surveys tend to stress the former aspect.

A number of studies see the processes of individualization and women's rights leading to change, such as a tendency towards higher participation by women in paid employment and fewer children. Changes are also foreseen within households; partners and also children will take a more self-reliant and independent stance. In this respect a transition is seen from an authoritarian household structure to one based more on 'negotiation'. The durability of relationships will also come under pressure; marriage will remain important, but divorce will also rise. At the same time, the number of unmarried cohabitantes is expected to rise. People will enter into lasting relationships, but they will no longer last an entire lifetime (i.e. serial monogamy).

In addition a number of studies foresee a decline in informal help in the immediate environment in response to the trend towards individualization and women's rights. Other, less traditional forms of mutual support are seen as having potential, but these will not develop of their own accord. The studies on leisure also anticipate an increase in voluntary work.

On the grounds of the assumed socio-economic developments, an increase in leisure is also anticipated. Here again the studies display consensus. The anticipated consequences are not particularly notable, because it is assumed that the way in which time is used by particular generations and groups is relatively stable over time. On account of the generational effect, it is expected that the elderly will participate more actively in sport, cultural affairs and education. Women will become more active in the labour market and devote more time to education.

With respect to habits injurious to health, the policy document 'Towards the year 2000' by the Ministry of Welfare, Health and Cultural Affairs foresees a number of positive and negative tendencies. Ultimately these trends are seen as giving rise to problems. The pessimistic expectations about the use of alcohol and drugs are shared in the Society and Crime Policy Plan. The Central Bureau of Statistics anticipates little change in male excess mortality, which is assumed to reflect a difference in life-styles. The scenario 'Growing Older in the Future', however, assumes that women, as they achieve greater equality, will adopt equally as unhealthy habits as men, and die earlier as a result.

#### *7. Political/administrative developments*

Taken as a whole there is a consensus about a further withdrawal of government. In some cases this is presented as an expectation, in others as a desideratum. Greater freedom of choice will, or should, arise for the individual and actors in society. The consequences for legislation and administrative provisions are not viewed equally; some see a trend towards more general and more substantive regulation instead of procedural or facilitative regulation while others foresee a more mediatory or advisory role for government rather than that of regulator. However that may be, it is generally considered that the scale and bureaucratic nature of government impairs rather than stimulates social dynamics, and that a new balance will, or will need to be, struck. The nature of the redistribution of responsibilities does not lend itself to generalization, varying from area to area. In the case of a concept such as the 'caring society', for example, the chief emphasis appears to be on greater responsibility on the part of the individual and small groups ('solidarity') and non-commercial organizations. In the case of

'administration at a distance' in higher education, greater responsibility on the part of educational establishments is seen as creating greater room for market forces.

The speed with which thinking can evolve in this field may be illustrated in the case of public health. Since the publication of the report 'Towards the year 2000', proposals have been made which, from the viewpoint of the redistribution of responsibilities, mark a step forward. These proposals call for greater competition, for example between hospitals and private insurers, and for the 'market-place hospital'. The report outlined options; shortly afterwards these had already been converted into policy proposals.

But in the case of all these ideas – including the studies covered in the survey – the concern is not with expectations of the future but with policy proposals, which fall outside the scope of this survey. These proposals will however be encouraged by the general expectation that government involvement will be cut back and that government will increasingly concentrate on a number of basic functions.

At the level of general expectations, the studies may be said to display greater convergence than divergence. Anomalous views at this level are far and few between. The consensus applies particularly to expectations about background factors. Those responsible for initially producing information on a particular development are often aware of greater uncertainties than the users of that information. As the analysis becomes more detailed or quantified, the divergence widens. In many cases this stems from the sensitivity of the results to the method used and to differences in forecasting techniques and the empirical data. There is a marked degree of consensus about the main assumptions, while the precise results form a reflection of the many uncertainties inherent in the forecasting process. Detailed statements are often only relevant for a particular field, so that comparison is not possible.

The fact that the survey was confined to studies conducted under government auspices could form an explanation for the degree of consensus observed. Individuals and institutions outside government could conceivably have different expectations of the future. It is, however, difficult to believe that major differences of view in society about future developments would not be reflected in the studies examined. The evidence suggests that, at least in broad outline, the consensus as outlined above reflects thinking about the future in the Netherlands in the mid-1980s.

#### **4.5 Impact of background factors**

The semi-general nature of many of the studies does not necessarily mean that importance is attached to the impact of background developments on the field in question. Taking the studies as a whole, the importance of the various background factors varies markedly. An attempt is made below to summarize the importance attached to background factors in the various fields.

The impact of *demographic developments* is particularly evident in these studies, many of which examine the consequences of the expected change in the size and structure of the population. This is understandable, not just because these are indeed important relationships, but also because they are readily quantified. Population projections can be straightforwardly translated into consequences for various facilities; in those cases where the use of facilities is age-related, the ageing of the population and the declining number of young people is a particularly useful projection in terms of future research. At the same time, however, a number of qualifications are in order. As noted earlier, the certainty about demographic trends is less marked than the virtually unanimous use of the CBS median-variant population projection might suggest. In

translating these projections into the demand for facilities, an unvarying relationship between the two is also assumed. Insight into the so-called 'generation-effect' as against the 'age-effect' is very limited; it may be that the behaviour patterns of and use of facilities by the elderly of the future will more closely resemble those of the young rather than the elderly of today. Research carried out by the Social and Cultural Planning Office indicates moreover that the growth of facilities in the past can be explained to only a limited extent by demographic factors.

However this may be, projected demographic trends play a particularly prominent role in the studies. This factor, in particular, serves in the studies as an external frame of reference for the reduction in complexity.

*Socio-economic expectations* also play an important role, although the number of studies in which these expectations are examined for their impact on the area in question is less great than in the case of demographic trends. To some extent economic developments are treated in the same way as demographic trends, namely as an independent variable with implications for the area in question. In addition economic growth is also often viewed as a goal to which the field in question should contribute. In the Higher Education and Research Plan, for example, the quality of education is regarded as a significant factor for economic growth. Similarly in the case of physical planning and transport and communications there is an emphasis on the contribution that can be made towards economic development. The fact that these studies are based around Central Planning Office scenarios thus entails a normative choice, in the sense of providing a framework for action.

In those cases, however, where socio-economic trends are treated in the sense of forecasts, they less commonly form a fixed point of reference than they do in the case of demographic trends. The uncertainty surrounding economic trends is more closely linked in the studies to anticipated developments in particular fields than it is in the case of other background factors. In some studies, however, projected economic trends serve by way of a backdrop with few implications for the field in question. The report 'Towards the Year 2000', for example, provides detailed information on employment trends but fails to draw any consequences from these trends on health matters. The same is evident in a number of other studies, presumably on account of the lack of insight into the relationship between economic developments and trends in the field in question. The same applies strongly in the case of demographic trends, changes in marital and familial patterns and trends in crime.

Next to demographic and economic trends, the background factor with the greatest impact is *socio-cultural developments*. Except where they can be quantified, general statements about progressive individualization, equal rights for women and so on generally have little bearing on the ultimate forecasts. In the case of women's rights, quantification is possible in relation to the supply of labour and the estimated participation in education. The effect of individualization is charted in terms of household trends, as reflected for example in housing-demand forecasts. In a solitary study socio-cultural trends form the basis for scenarios, but generally a continuation of present trends is assumed. Since the implications of such a continuation are but rarely examined, one obtains the impression that such assumptions tend to act as a sort of *ceteris paribus* assumption: 'radical cultural change is unlikely'.

The impact of other background factors is much less pronounced. *International developments* play an important role in the CPO's economic survey and its study in the field of higher education. They also provide a backdrop for the 'Randstad-Metropolis' concept put forward in the Physical Planning Perspectives Memorandum. In the other studies the international factor is much less evident.

*Technological developments* play a particularly important part in surveys in the field of environmental planning (especially agriculture and the

environment), the economy (productivity gains), education and health care. This is not to say that technological developments are regarded as unimportant in other fields; the reverse is true. It is, however, difficult to specify their consequences and to incorporate them into forecasts. For this reason the assumed technological developments are often presented in very general terms only.

Similarly the *political/administrative assumptions* are also often general in nature and their wider effect remains unclear. In some cases their impact may be deduced from the problems examined in the survey in question, but the linkage is by no means always spelt out. In a number of cases the impact of the assumptions emerges particularly in the form of policy recommendations. The proposals in for example the Higher Education and Research Plan, 'Leisure: a Vision of the Future' and the Memorandum 'Towards the Year 2000' are predicated upon a withdrawal by government. In this respect the studies carried out as part of the Review Operation are of a mixed nature, in that they take as their normative starting point a reduction in the share of government expenditure and explore the policy options to that end. Furthermore, it cannot be assumed that the policy recommendations resulting from these surveys necessarily lead on balance to a withdrawal by government. The net effect is not easily discerned, either for individual studies or for the studies as a whole.

Finally, developments in the field of *physical planning, nature and environment* are not generally regarded as a significant background variable. Where they are, it is generally assumed that the physical parameters will not act as a significant constraint on developments in the field in question. The lack of attention to nature and the environment in surveys concerned with other fields may to some extent be explained by the lack of official surveys in this field. This gap may well be plugged in the near future with the compilation of the national environmental policy plan. Another factor may consist of the major (analytical) difficulty of quantifying the second-order effects of environmental changes. The ultimate effects of changes in the environment are often unclear. These relationships are often exceptionally complex and difficult to describe, and it is questionable whether this gap in knowledge can be adequately filled in the future. In many cases the physical environment tends in consequence to be treated primarily as a result of projected developments in the field in question.

#### **4.6 The changing image of the future**

We have seen above that where the surveys of the future make assumptions on the same subjects, the expectations about future trends tend to run in the same direction rather than to diverge. Such consensus may be the result of agreements, consultation or coordination. Alternatively a particular expectation may be held because it forms part of a more widely accepted image of the future. The definition of the future is, to some extent, culture-bound, i.e. it is not independent of the prevailing values and norms and concomitant priorities, or of the knowledge and collective experience in a given period. Forecasts and projections are a formalised expression of the cultural setting; the concept 'expectation of the future' emphasises the *a priori*, self-evident and social nature of such projections.

The 'spirit of the times' is often a significant factor but it is also difficult to give verbal expression to the time-bound nature of expectations, since that would require a measure of detachment from one's own age. Some assistance may be provided in this respect by a historical comparison, for example the scenarios presented by the WRR in its 'Survey of Future Developments' (ATV) in 1977. The ATV brought together expectations about the future course of events in a large number of areas. The ATV differs from the ITV survey in that it was expressly concerned with

presenting a coherent picture of the future deemed plausible by all concerned, whereas the ITV can only note the existence or absence of consensus. In the ATV, consensus was imposed on the result in advance; in the ITV consensus emerges in retrospect in relation to a number of points. A comparison is therefore possible only for those aspects in respect of which the ITV survey indicated the existence of consensus or disagreement. Clearly this is only possible where assumptions have been made about a certain trend in more than one survey. In addition the comparison below is confined to main points. Despite these limitations, however, the comparison manages to throw light on the way in which thinking about the future has changed over the past ten years, and on the elements that have remained constant.

The ATV elaborated two scenarios, the A and B variant. The differences relate not to the desirability but to the plausibility of the trends described; some considered the A variant plausible while others opted for the B variant. Variant A assumed sustained economic growth of 3 percent per annum until the year 2000, whereas variant B foresaw a gradual decline to zero growth in the year 2000. The latter would be enforced by growing environmental awareness. This would be accompanied by a change in the supply of labour, related to changing attitudes towards paid employment. The change would also take place within families with respect to the division of roles between men and women.

Although the comparison presented below is necessarily brief, it does highlight some of the main features of prospective thinking then and now. A decade ago the ideas of the Club of Rome played an important part, to the point of acting as the pivot between the two alternative scenarios. This resulted in substantial differences in the fields of the economy, employment, environmental planning, transport and communications and women's rights. Looking back it is notable that the role of government in society was at that time primarily viewed in terms of an expansion of government involvement in many areas; the task of the welfare state was seen as one of completing the original objectives. Much was made in the survey of the administrative problems to which the sharply increasing desire for participation by the more individualistic and articulate public would give rise.

A comparison of these views of the future with present thinking indicates how greatly the emphasis has changed. Whereas formerly expectations of the future could be grouped into two, sometimes radically different scenarios, there tends now to be just one image of the future. Ideas on the role of government have done an about-turn: in many areas the main question now is the way in which government powers and involvement can be reduced in favour of greater responsibilities for private or semi-private initiative. The ATV envisaged steadily growing participation, whereas this no longer forms part of the debate. The goals of economic growth and environmental quality are now regarded as much less mutually exclusive; environmental constraints are no longer seen as impeding economic growth. In the case of areas such as environmental planning and transport and communications the main question now is the way in which they can contribute towards economic development. The marked importance currently attached to technological developments stands in sharp contrast to the neglect of this subject in the ATV. The significance now attached to technological developments may help explain the predominant view that a high level of unemployment looks set to continue.

Apart from these contrasts there are also a number of areas of continuity in the various images of the future. In the first place this relates to expectations of an ageing population and a declining proportion of young people. Although repeated adjustments have been made to the demographic projections in the intervening years, this remains the

predominant picture. More or less in line with the demographic expectations in relation to ageing and the decline in the birth rate, the expectations about smaller household size and the participation by women in the labour force remain unchanged. In 1977, as at present, continuing socio-cultural differentiation and further secularization were anticipated. In general it may moreover be noted that the differences between the results of the ITV and the A variant are less pronounced than those in relation to the B variant. A significant difference between 1977 and 1987 may, therefore, be said to be the lack of any broad alternative to the prevailing image of the future at the present time.

**Diagram 1 Changing images of the future, 1977-1987**

Source	ATV		ITV (Survey of Future Research)
	Variant A	Variant B	
Subject	Variant A	Variant B	
Demography	Ageing/fewer young people	Ditto	Ditto
Environment	Environmental constraints not an obstacle to further growth	Environmental constraints force zero growth	Environmental constraints not an obstacle to further economic growth
Energy	Real doubling in price of energy on account of rising production costs	Ditto	Rising energy price dictated by market forces
Raw materials	Increasing scarcity manifests itself in steady deterioration of terms of trade	Ditto	No obstacle to high economic growth
Technology	Not explicitly dealt with	Ditto	Accelerated technological change
Economy = GNP growth	To 2000: 3 percent GNP growth	Fall in GNP growth to 0 in 2000	At least moderate growth
= Unemployment	Back to frictional level in 2000	Ditto	Remaining high*)
Socio-cultural = Unity of thinking and behaviour	Further differentiation	Ditto	Ditto
= Secularization	Continuing	Ditto	Ditto
= Individualization (household forms)	Continuing	Ditto	Ditto

= Women's rights	Continuing	Continuing, with reallocation of roles in work and family	Continuing, especially with respect to work
= Work ethic	No weakening	Less emphasis on work	No weakening
Political/Admin.			
= Role of government	Increasing in many fields	Ditto	Retreat by government
= Participation by citizen in decisionmaking	Increasingly sharply	Ditto	Not as issue

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Source: WRR

\*) Certain studies, especially those of the CPB and WRR, examine the prospects for a sharp decline in unemployment, but in the sense of possibilities, not expectations.

In retrospect, the approach towards the future as encapsulated in the ATV falls into a recognizable mould. In the first place, the expectations are clearly time-bound. Projected forward several decades, the images of the future represent the dominant political and social issues at the time the study in question was drawn up. Also notable is the extent to which factual developments can diverge from these expectations. It is true that the recession led to zero growth, but this had little to do with a change in mentality, such as greater environmental concern, women's rights or a changing work ethic. This in turn gave rise to the debate about the role of government, initially inspired by financial and economic considerations but later also by a fundamental reappraisal of the legitimacy of the division of powers between government and society. The examples cited indicate that a survey of future developments – as noted in the ATV itself – reveals more about the situation at the time the survey was compiled than about the future. The dynamics of social change at the time in question are hard to understand; only in retrospect can patterns be discerned and distinctions drawn between prevailing expectations and what later turn out to be more fundamental changes.

As already noted, the ITV is, in comparison with the ATV, notable for the lack of any comprehensive alternative view of the future. Although the observed consensus is a partial one, it appears more extensive than it was a decade ago. This does not, however, mean that the predictive power is also greater. The developments responsible for a result other than that envisaged in the ATV resulted from a complex of external, international developments and domestic trends. A similar dynamic cannot be ruled out in advance for the period ahead.

#### 4.7 Function of surveys of the future

Surveys of the future carried out on behalf of the government differ in relation to their 'closeness' to government policy. There are studies which are carried out at the start of the policy preparation process, the results of which are treated as the subject for social and political discussion. Much further down the policy chain there are surveys which provide the basis for the continuing policy process. Clearly, the role envisaged for a study in the planning process will influence its design. A related factor is of course the position of the body carrying out the survey; it makes a difference whether the survey is carried by or on behalf of a departmental organization or by a planning bureau or the WRR.

Departmental surveys of the future generally start with a survey of the background setting, proceeding from there to an analysis of the impact of background factors on the policy area in question and concluding with policy implications or policy proposals. This then suggests that the survey has also been drawn up in this sequence, thus providing the impression that government policy is confronted with new insights of policy relevance only after a lengthy, more-or-less politically neutral analysis.

Surveys undertaken by government ministries are carried out for the purposes of policy development, for which reason they deal with the problems, objectives or interests of the organizations by which they were developed. Every departmental survey of the future must be seen as the result of a weighing-up process in which it is established to what extent policy can react at that point to likely changes in the future. This evaluation process means that a survey of the future serves two separate functions for the organization in question, namely opening up the organization to external impulses, and the presentation of the future along lines that enables the organization to solve the anticipated problems. The first of these functions – the *anticipatory function* – emerges where a survey indicates developments of potential relevance in the field of the user. The survey seeks to chart possible developments and relevant margins of uncertainty. Where possible insight is provided into the consequences of the developments for the policy field in question. New problems are identified and possible measures advanced for coping with them.

The second function – the *legitimizing function* – emerges where a selection is made from possible future developments with a view to the resolution of those problems by existing or proposed policies. Every survey of the future involves a reduction in the range of possible developments. This may occur on the grounds of inadequate empirical knowledge, a lack of hypotheses about relationships or the need to reduce a complex situation to manageable proportions. In some cases reduction also takes place in order to protect present policies, policy proposals or the organization.

Of these two functions, it is evident from the studies examined in this survey that particular stress has been placed on the legitimating function. This applies particularly to the departmental surveys; the non-departmental surveys tend to be more anticipatory in nature. Non-departmental surveys are constructed along the same lines as departmental studies, but without the same policy emphasis. Unlike departmental surveys, their usability is not monitored in a weighing-up process related to current or proposed policies. That usability is instead determined by the solidity of the analysis and the need expressed in other quarters for the information in question. This means that the emphasis is placed on the anticipatory function, although the research design may also to some extent reflect the goals of the end-users of the survey. In deciding which trends are and are not to be investigated, or where the complexity is to be reduced, the major considerations include the quantifiability of variables, the operationalization of factors or the tenability of assumed relationships, set against the background of the use the 'customers' will make of the surveys.

Since the anticipatory function and the legitimating function are two aspects of the same decision-making process, it is difficult to separate them analytically. The two factors run throughout the entire argumentation of every departmental survey of the future. In some cases the anticipatory function is dominant, but generally it is the legitimating function. This varies not just from survey to survey, but also within surveys themselves. Generally speaking, the anticipatory function tends to decline in importance as surveys draw closer to the stage of policy implications or policy proposals; in terms of complexity, the background is reduced to more and more manageable proportions. As this occurs, there is a corresponding increase in the importance of the legitimating function.



The functional gap between a survey of the future and government policy also appears to affect the balance between the two functions. To take an example, the gap between the Physical Planning Perspectives Memorandum (NRP) of the National Physical Planning Agency and physical planning policy should at the least be bridged by the Fourth Physical Planning Report and numerous crucial planning decisions; with the result that the anticipatory function occupies a prominent place in the NRP. In the case of defence, by contrast, prospective thinking immediately forms part of the planning process for current policy, so that the legitimating function comes clearly to the fore.

The balance between the anticipatory and the legitimating functions is examined below in terms of a number of examples drawn from the future research included in the WRR survey. To begin with, surveys are examined in which the anticipatory function is the more prominent, ending with those in which the legitimating function is predominant. In between these two extremes a number of surveys have been roughly classified in terms of decreasing emphasis on the anticipatory function and increasing stress on the legitimating aspects.

The anticipatory function is particularly evident in the non-departmental surveys. The CBS population projections present a number of marginal variants within which population trends are likely to take place. The anticipatory function comes clearly to fore; the safety margins adopted in the model determine the scale of the perceived room for development. The model is based on four factors: births, mortality, emigration and immigration. In relation to the latter, a number of policy assumptions are made. Given the fact that the ratio between births and immigration is around 2:1, these assumptions are not unimportant. The demographic projections are, accordingly, affected by the policies with respect to population inflow. These policies consequently have a knock-on effect in every area in which demographic projections play a part.

Like the Central Bureau of Statistics, the Central Planning Office also fulfills an anticipatory function. In its long-term survey, the Central Planning Office regards the uncertainty surrounding economic developments as so great that it only indicates the limits within which a more or less plausible growth path might take place. These limits flow not just from empirical or theoretical uncertainties but also rest on what is regarded as desirable or possible. In the high-growth scenario, economic growth has been set at 4 percent: a growth figure which, theoretically and also historically, is near the maximum obtainable. Here, the anticipatory function is predominant. In the case of the growth variants below the high-growth scenario, the theoretical under-pinning is absent. This makes it difficult to set a lower limit to growth, other than what is regarded as the minimum acceptable. The low-growth variant has been set at 1.5 percent. The result is that unemployment shoots up to the very high level of 1.2 million by the year 2000, the government deficit does not fall below 7.5 percent, and the burden of social security contributions and taxation rises.

In the case of departmental surveys, the anticipatory and legitimating functions go hand in hand. While insight is provided into possible developments, the range of those developments remains very limited. A common technique is to extrapolate existing trends, which may throw up problems in the future. Breaks in the trend, which would produce a more varied picture of the future, are not, however, generally allowed for. The surveys therefore provide the government with little frame of reference for changing the direction of the postulated trends.

The interaction between the two functions is clearly evident in surveys which commence by defining a broad background setting, thus producing a highly varied picture of the various possible scenarios in the policy area in question. A reduction in complexity is essential not only in terms of

manageability but also on account of the limited empirical foundation of observed developments and the weak theoretical basis of the assumed relationships. In addition, reduction also tends to take place along the lines of what the organization itself deems desirable; the legitimating function comes into play.

A good example is provided by the Physical Planning Perspectives Memorandum of the National Physical Planning Agency. In comparison with other surveys of the future, the spectrum of future developments regarded as relevant is notably broader. Even so choices are made, among other things on the basis of personal preference. In an earlier scenario exercise, the National Physical Planning Agency (RPD) developed three models in relation to the national infrastructure. Of these three, the 'Randstad-Metropolis' scenario is the most oriented towards the internationalization of production and the flow of goods. Although this scenario was originally presented as a possibility to be taken into account, it is used as input for the Memorandum as the most likely possibility in terms of the impact on the physical environment. Government policy should therefore be directed towards strengthening the central function of the Western conurbation or *Randstad* to ensure that the international flows of goods did in fact come to the Netherlands. In addition to the anticipatory function, the impact of the legitimating function emerges in so far as only one possibility rather than all or several is worked out in the course of the analysis. The organization is given a new or strengthened objective: the promotion of economic growth by means of physical planning. Once this choice has been made, the legitimating function could also have led to choices being made in relation to important physical developments connected with (for example) the infrastructure, urban restructuring or the use of released agricultural land. The fact that this did not occur, at least in this stage of policy preparation, and that limits were not set on the anticipatory function, reflects the objective that the Memorandum should encourage policy debate with other organizations. In so doing, the legitimacy of the goals of such organizations was recognized; an opening was provided for both the ministry in question and other departments to put forward proposals in the policy sphere which they considered desirable.

A second example of a survey of a broad anticipatory nature is the report 'Towards the year 2000' by the Ministry of Welfare, Health and Cultural Affairs. The anticipatory function is even more clearly evident in the reports by the Steering Committee for Future Health Care Scenarios. The legitimating function emerges at an early stage in this Report, which is based on the latter reports, when, in the survey of the background situation, the development of the medical care system is not itself put forward as a factor radically affecting the level of health. This means that a factor widely regarded as crucial for the improvement of public health is left to one side. In this way, the Report, and hence the process of policy development, avoids any fundamental debate of propositions that could challenge the current system of care. In the further description of developments in the field in question, the legitimating function plays a role in those cases where, in respect of the provision of care, consequences should be drawn from observed background developments. The lengthy preliminary discussion about the incidence of diseases does not give rise to surveys of the future in which the anticipated medical care system is derived from the demand for care. Instead, the Report discusses the structure of medical care facilities within the framework of current thinking about what is desirable in policy terms. Findings in relation to the background setting are drawn upon, but only in so far as these fit in with the existing policy perspective.

The model exercise carried out by way of preparation for the Second Transport and Communications Structure Plan (SVV-2) of the Ministry of Transport and Public Works is highly anticipatory in nature. The study analyses the potential impact on the growth of mobility on the road of

economic variables such as employment, length of the working week, income, volume of output and imports and exports. The legitimating function of this preparatory exercise fits in entirely naturally. The aim is to demonstrate the worst problems that may be expected, especially in relation to the increase in mobility. This curtailment of the anticipatory function may be traced to a changed attitude by the department in relation to the growth in traffic. In addition to providing an alternative that sought as far as possible to meet the potential demand for road transport, the First Structure Plan (SVV-1) also outlined alternatives for restricting the volume of traffic. Since then, attention has come to focus on congestion problems on the road. The issue for policy is not primarily how traffic is to be cut back, but the kinds of problems that will arise from future developments in transport and communications. Policies can then be developed in response to the identified problems. The problems are identified by seeing what would happen if the anticipated trends were to take an exaggerated form. Only later is this picture modified by means of proposed measures.

A further example of a survey of the future in which the anticipatory function is significantly reined in consists of surveys of crime trends. The general expectation is that crime will continue to grow. Major factors (as put forward by the Roethof Committee) include the decline in traditional social ties, the process of individualization, urbanization and increases in scale. Also important are economic factors, such as the sharp increase in the number of goods lending themselves to theft. The extrapolated trends create a picture of an unstoppable rise in crime. Clearly, the legitimating function is to the fore: the uncertainties surrounding the extrapolations or positive factors in social developments receive little emphasis, thus reducing the range of possible scenarios to just one. The analysis in these surveys thus serves to underpin or strengthen the widespread call for more radical policies.

There is no instance of a survey in which the analysis is wholly dominated by current policy. Nor would that be consistent with the anticipatory function that such surveys are designed to play; clearly, that function would be lost if the analysis of the future and the prevailing expectations within the bureaucracy were largely to coincide. This situation sometimes threatens to arise within the Ministries of Foreign Affairs and Defence. Within the Ministry of Foreign Affairs, it is not unreasonably assumed that the Netherlands has at best an extremely marginal impact on international relations. The foreign policy of the Netherlands is primarily reactive in nature. Developments in the highly complex setting become interesting only at the point when they impinge on the Netherlands and a response is required. Because of these built-in limitations on the anticipatory function, there is less identification of developments that could pose fresh problems for government policy. The anticipatory function does, however, operate in those instances in which policy already finds itself confronted by totally new situations. The introduction of SDI is a graphic example.

Comparable in nature is the future research of the Ministry of Defence. Its research is wholly directed towards the planning needs of staff policy and procurement policy. Policies in these areas are highly continuous in nature; there are few reasons for describing trends in the background setting more broadly than strictly required for policy purposes. Even so, an increasing need is perceived for research into an uncertain future. The priorities set by Cabinet in relation to the defence effort, for example, are in an increasing state of flux. This factor needs, therefore, to be incorporated into planning as an increasingly uncertain element in the future. The impact of the background setting on policy is increasing, as a result of which there will be an increasing need for an improved anticipatory function.

The surveys of the future carried out by the Directorate-General for Housing (DGVH), as outlined in the recent Housing Trends Report,

provide very little place for the anticipatory function. The model on which the report is based is largely a political instrument, deriving from the political notion that every adult is entitled to a home if he or she so desires. This concept of need is little affected by changes in income levels or living costs. By failing to assign any place in the model to changes in government policy, the predicted demand for housing obtains a semblance of almost unassailable certainty. This unassailability of the model and its results play a useful function in the negotiations between the DGVH and other government agencies. As long as the model is not clearly defective, the perceived need for housing – the political demand of the DGVH – is a given. At the present time, the DGVH has little interest in surveys of the future that could have a disruptive effect on efforts to solve the quantitative housing shortage. Once this shortage has been wholly or partially resolved, the surveys of the future may be expected to become more responsive to new impulses from outside. A movement by the Directorate-General towards the incorporation of more qualitative aspects in its surveys is already discernable.

#### **4.8 Methodological characteristics**

Having examined a number of substantive features of the various surveys of the future, we may next turn to a number of methodological aspects. There is a wide variation in approach; apart from highly formalised, quantified model-based approaches there are a number of more qualitative viewpoints; both the scenario method and trend extrapolations are employed. The position of surveys in the policy-preparation process also varies. The most general surveys tend to be conducted at the start of planning cycle, and the more partial ones at the end.

Despite the major variations, there are also a number of characteristics which apply to most surveys. These are examined below.

##### *The reduction in complexity*

Since the future is not knowable in advance, statements about future developments are necessarily hypothetical. Future-oriented action is therefore based on expectations, as noted in Chapter 2. The inherently uncertain nature of the future does not, however, eliminate the value of forming an impression of the future course of events. This enables the uncertainties to be indicated more clearly, thus providing information on which action can be based. In itself, the absence or presence of empirically-tested knowledge is not a sufficient argument for examining or neglecting certain factors or relationships in surveys of the future. The inherently speculative statements will, however, need to be based as far as possible on information about developments in the past or other countries. Future surveys can therefore give rise to empirical research.

It was seen above that the emphasis on the various background factors varies considerably in the individual surveys of the future. It was also seen that the surveys involve a considerable reduction in complexity. In itself this reduction is unavoidable; otherwise any description at all would be impossible. Of more interest is the way in which this reduction takes place.

In this respect the question arises as to whether the reduction is effected in relation to the background setting or to developments in the field in question. Since there will always be a tendency for the complexities to be better understood in the field in question, it may happen that a study explores a range of future possibilities in that field while using the background setting as a fixed frame of reference. Taking the surveys as a whole, the most common approach is a reduction in complexity in both the field in question and the background setting; generally a single development for the future is assumed for each of the aspects examined.

A minority of studies set rather broader limits for developments in their own field. In these cases the margins are generally determined by the assumed variation of a single background factor. In many cases economic developments are seen as injecting dynamism into the field in question.

For the rest it does indeed hold that trends are allowed to vary more widely when they form part of a particular field rather than a background factor. Demographic forecasts form a clear example; of the three variants drawn up by the CBS, the median variant is almost invariably the only one used. Another example is the breakdown of employment by branch of industry, for which the Central Planning Office and WRR worked out a number of scenarios, whereas other studies make do with a qualitative sketch of a single trend.

Various other features of the reduction in complexity may be noted. Many surveys concentrate on what one might term first-order effects. Once background factors have been translated into developments in the field in question, there is little interest in the potential implications of those factors for other fields. A number of studies, for example, assume a high level of unemployment in the foreseeable future, but the consequences are barely examined. The same applies to the opening up of income differentials assumed in the coming period, or the concentration of economic activity and facilities in the Western conurbation of the Netherlands. Finally, no attention is paid to feedback mechanisms. The assumed growth of the economy leads, for example, to substantial traffic congestion, but it remains unclear how that congestion might in turn affect economic growth.

#### *Impact analysis*

Assumptions about the background often play an important part in trends in the field in question. In many cases this involves a radical simplification of the background setting. Theoretically, there will always be more relationships of significance than a study can handle. As was seen in section 4.5, current future research tends to concentrate especially on demographic trends and to a lesser extent on economic and socio-cultural developments. One of the main objects of the surveys is to bring about adjustments in the various sectors in line with the changing circumstances in these fields. This limitation will be prompted by the lack of quantifiable information on developments in other fields.

Nevertheless it is notable that where explicit assumptions have been made, it is often difficult to assess the relevance of the choices. Certainly in the case of population trends – a core variable in the surveys – information is available on a number of possible trends. In most cases, however, the median variant has been selected without further explanation; only in one case is an attempt made to examine how the results would vary under different assumptions.

Many of the assumed background trends are treated in the same way. The studies on leisure trends, for example, assume constant purchasing power. The importance of this assumption, however, remains unclear because no indication is provided of the implications that changes in purchasing power would have for leisure patterns. In the case of housing, the significance of the assumed weakening in the trend towards individualization would stand out more clearly if information were also provided on the implications for housing of an unchanged or accelerated pace of individualization.

It is also conceivable that other, equally plausible assumptions could lead to better situations in the future. In its Physical Planning Perspectives Memorandum, the National Physical Planning Agency concentrates on the theme that the *Randstad* might be developing into a metropolis. This is valid in terms of the aim of stimulating the Dutch economy by means of physical planning. It is, however, notable that in doing so, the problem of congestion on the road – long regarded as one of the main targets of

physical planning policy – is relegated to the sidelines. If the National Physical Planning Agency is seeking to stimulate the international distribution function of the Netherlands, preference might have been given from the many development models to ones in which traffic congestion in the Randstad would be eased, for example by a wider geographical distribution of economic activity.

### *Continuity*

Surveys of the future are generally based on the assumption that recent trends will continue. This applies both to background developments and, to a lesser extent, to developments in the particular field of study. In some cases this continuity relates to the persistence of the current situation, while in others a continuation of recent trend patterns is foreseen. Only a limited number of surveys assume a wider range of possible trends. In these cases the scenario method is generally used.

The emphasis on continuity presumably reflects a realization that current developments will have a major bearing on the future. These trends need to be identified to permit the future to be reliably charted. In the words of Naisbitt, author of *Megatrends*, 'Trends, like horses, are easier to ride in the direction they are already going'<sup>19</sup>.

Future research with a marked emphasis on continuity does provide a frame of reference for policy if problems are formulated which can then be eased by means of anticipatory policies. In terms of this strategy, however, the trends themselves remain beyond the scope of government policies. The question is, 'with what tasks is the government confronted as a result of trends x, y and z,' and not, 'what potential developments could occur with respect to variable x, y and z, and how can these be brought about or prevented?'

Given a lack of insight into interrelationships, it is understandable enough that the future pattern of developments should be based on the continuation of the situation as it has evolved. In so far as social change is a reasonably slow process, reasonably accurate predictions may be produced by this approach for the short or medium term. Developments in the past and elsewhere indicate, however, that breaks in the trend are distinctly possible and allowance needs to be made for this possibility when speculating about long-term developments. This has the effect of increasing the policy relevance of surveys of the future not just because conceivable deviations from the trend are examined but also because the ability to influence the trends themselves becomes the subject of attention.

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<sup>19)</sup> J. Naisbitt, *Megatrends, Ten New Directions Transforming Our Lives*; London, 1984.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Findings from the survey of future research**

Having examined the prospective research carried out on behalf of the national government in the Netherlands, the question arises as to what recommendations may be formulated for further future research. To begin with however we may once again briefly summarize the most important findings.

The first major conclusion is that in many fields, surveys of the future conducted under government auspices have become part of policy development.

A second conclusion is that all the surveys entail a marked reduction in complexity. Generally speaking, only a limited number of factors are taken into account. The anticipated semi-general nature of the surveys held good to only a limited extent. Gaps were identified in the survey material with respect to international developments, trends in the field of nature and the environment, technological developments, socio-cultural developments and political/administrative developments.

A third finding is that the surveys are, understandably enough, in most cases strongly policy-oriented. Normative choices play an important role. In some cases, the surveys specify or illuminate the available options, but frequently too they opt to a certain extent in favour of existing policy.

A fourth notable finding is the existence – certainly among the users of information produced by others – of consensus about certain broad lines of future developments. This is a consensus about long-term trends, whereas it may reasonably be argued that the prevailing image of the future will change in the much shorter term.

Fifthly, and related to the above, it may be noted that most of the surveys are based on the projection of current trends. Breaks in the trend or shifts in the pace of change are difficult to foresee, but it is precisely these shifts that will lead to a future radically different from that currently expected. Excessive adherence to the prevailing image could therefore detract from the anticipatory function of future research. Since the direction of change cannot be known in advance, the need to work with alternatives would appear inescapable. It is precisely here that the studies examined in the survey tend to fall short.

### **5.2 Future research outside the WRR**

The success of a survey of the future does not depend on the accuracy of a prediction but on its usability in policy terms and on the contribution it can make towards building up a constructive vision of the future. This criterion is couched in very broad terms and can find expression in many ways. The future is uncertain; only rarely do explorations of the future produce such compelling arguments as to narrow down the available policy options to a single choice. There is, accordingly, little merit in speaking of the 'requirements of the future': this suggests that the future is already here. At the same time it is understandable that an attempt should be made to legitimate decisions by arguing that one has the future on one's side. Seen in these terms, there will be a tendency to gravitate towards conceptions of the future that serve to underpin what one is trying to achieve. Such a self-confirmatory function in relation to policy cannot, however, be the sole task of prospective research, since this would fail to add any fresh arguments to the political decision-making process. The value for policy of future research lies primarily in the identification

of uncertainties and possibilities. This means throwing greater light on prospective developments that might be regarded as either desirable or undesirable and hence in need of prevention. Insights of this kind can also help increase policy robustness, i.e. policies capable of dealing with divergent circumstances.

A knowledge of uncertainties and possibilities can also clarify the political content of choice. For example, an indication can be provided of the environmental pollution that would result given a particular development of the economy or the volume of traffic. The precise implications for public health, for the various uses to which the environment has been put and for nature and landscape are often unclear. Conversely the precise causes of discernible effects are often unclear. Environmental-impact relationships are generally highly complex and difficult to analyse. In political terms, this means that decisions have to be taken against a background of uncertainty. Is it a matter of 'ignorance is bliss' or should a more cautious attitude be adopted?

The findings of this survey, as summarized in section 5.1, provide the Council with grounds to argue for a strengthening of the anticipatory function defined earlier. In many cases this function does not come properly into its own. The background setting is generally reduced to a few factors considered to be important; trends are extrapolated. This has merit as a first step, in order to identify problems, but it is not sufficient in itself. The longer-term uncertainties need to be translated into attention to alternative potential trends; otherwise the analysis of policy options will remain confined to adjustments. Inevitably, this then serves to confirm the view that trends consist of neutral, unavoidable factors. But whether our concern is with the presumed persistence of the process of individualization or with the progressive concentration of economic activity in the *Randstad*, these are all social phenomena the evolution of which is influenced by divergent interests. If this social element is allowed to come more fully into its own the surveys achieve greater relevance not just for the government agencies concerned but also for other actors.

In view of the fact that no predictive value can be attached to the existing consensus about the future, a strengthening of the anticipatory function would increase the capacity to foresee future developments. Anticipated developments can change rapidly in the face of new policy stances or new facts. An example of the latter consists of population trends. As a result of the rise in immigration in recent years, the Central Bureau of Statistics forecasts made in 1986 and 1987 indicate a much larger increase in population in the coming decades than envisaged in previous projections. The studies discussed in part II (untranslated) of this survey are generally based on the older projections. The revised figures have substantial implications in many areas of policy. In this way, what appear to be obvious problems in the future can rapidly assume a different complexion. The environment does not come in for much attention in the surveys, but unforeseen occurrences could bring it back to centre-stage, with implications in many areas of policy.

Needless to say this does not obviate the need for choices to be made in surveys of the future. A reduction in complexity will always be required. The grounds on which a particular choice is made should wherever possible be spelt out, but as was seen in section 4.8, the significance of individual assumptions often remains unclear because these are not preceded by a impact analysis or reasoned argument. These aspects too deserve greater attention.

In designing the ITV, it was assumed that the survey would throw light on the prevailing image of the future in the mid-1980s. It was, moreover, expected that a considerable degree of divergence would emerge. Precisely because the future is uncertain, the way in which it is defined was expected to be dependent on the goals of the policy sectors in which the surveys took place. While this is certainly the case, it has not resulted in significant differences of insight. One reason for the consensus would



appear to be a mutual coordination of the underlying assumptions.

More interesting than the reasons for this consensus is the question as to whether future research should work towards greater coordination, particularly in respect of the assumptions. Employing common assumptions does not necessarily reduce the uncertainty, since the vision of the future is also determined by values and norms. The more these are spelt out, the more it will be clear where policy coordination is required. Prior coordination or integration carries the risk that government agencies will harmonise their objectives at the wrong moment. Given the divergent objectives, it is clear that the perspectives of the future and the assumptions on which they are based will not necessarily coincide. The ultimate decision is a political matter and should not be disguised in surveys of the future at bureaucratic level.

### 5.3 Future research by the WRR

New future research by the Council needs to start from the point that has been reached. To a greater extent than when the ATV and BTV surveys were undertaken, prospective research has become a standard element of policy preparation. Whereas a substantial element of the ATV consisted of the analysis of trends in individual areas, such information is now to a large extent supplied by other agencies.

This raises the question as to whether an effort should not be made to integrate the available information in a general survey of the future incorporating the various partial studies. Such integration could take place in various ways. In the first place the information in the individual fields can be aggregated. Doing so does not in itself yield any new information, except in so far as inconsistencies, differences and agreements are identified. The ITV can be read and used in this way. Secondly, the Council can attempt to establish the links between individual trends. Two approaches could be used: inductive, reasoning from the bottom up, and deductive, where links would be established on the basis of an overall viewpoint.

Even if one accepts the limited margins within which the trends in question are assumed to move in the studies covered by the survey, the impossibility of integration along inductive lines rapidly becomes apparent. The number of interrelationships and alternatives would simply be too great.

Developments in the various areas cannot, however, be viewed in isolation. A reduction in the number of possible developments can be achieved by means of deduction provided one has a theory linking up these phenomena. The same problem obtained at the time of the ATV, and no further progress has been made in this direction; compared with the situation ten years ago, the prospects for such theory-building have even receded. A less far-reaching deductive approach would be one based around a trend that was regarded as having particularly radical consequences. The implications of a central factor of this kind could then be explored in a large number of areas. A decade ago, for example, the issues addressed by the Club of Rome were widely seen in a 'coercive' light of this kind. One of the variants in the ATV clearly falls into this mould. This kind of strategy lends itself particularly to individual authors (such as Heilbroner and Fourastié, and now Toffler) or to groups coalescing around a particular viewpoint<sup>20</sup>. Individual or collective convictions can then give rise to a *Leitmotiv* along these lines. For a broadly-based body such as the WRR, however, this is virtually impossible, unless the evidence in favour of such a trend is virtually incontestable. No such situation obtains at the present time, although this

<sup>20</sup>) R.L. Heilbroner, *An Inquiry into the Human Prospect*, New York, 1974.  
J. Fourastié, *Les 40,000 heures*, Paris, 1965.  
A. Toffler, *The Third Wave*, 1980.

could of course change, for example if it should emerge that the recent share crash has given rise to a serious economic recession.

A final, deductive possibility is to achieve integration by means of a normative frame of reference whereby various phenomena are brought into relation with one another on the basis of a value judgement. This was the method adopted by the Council in the BTV but, as we have seen, the impact of the report in political and governmental circles remained limited. One reason for its limited effect was the working method adopted by the Council, whereby the Council itself defined the content of characteristic political views in terms of ideal-types, the aim being to reflect the divergent views within the political system. Alternatively, government policy might have been taken as the starting point for a survey of the future, or the Council might have formulated its own view of how the future should look. Both paths would, however, present difficulties for the Council. In the former case, there is the problem that also emerged in the BTV, namely that policy is in a continual state of flux; staking out the principles and assumptions of government policy – assuming this to be possible at all – would be to ignore its essential dynamism. The problem of specifying those problems, and the lack of coherence, create practical difficulties when it comes to compiling a study of the future. The second alternative, that of developing an independent view, would appear unattainable given the heterogeneous composition of the Council. In addition, the Council would thereby be adopting a political stance, which would derogate from its independence. It was precisely on account of these dangers that the notion of any political bias was ruled out in the parliamentary debate about the WRR Act of Establishment. On account of these considerations the Council concluded in its third term of office that the time was not right for a new, all-embracing survey of the future.

In the coming years, the task of future research as an independent activity by the WRR could find expression in two forms. These suggestions arise out of the findings of this survey and the discussion in the accompanying Forum.

The anticipatory function of the surveys examined suffers seriously from the lack of insight into a number of general subjects. These topics are of relevance for nearly all social areas or fields of policy. They include strategic subjects such as international, technological, socio-cultural and political/administrative developments. Information needs to be gathered about potential developments and the interrelationships with specific areas of policy.

The reasons for making a point of devoting attention to these areas in future prospective research are threefold. In the first place, it means that supplementary future research will take place in these areas, which are widely regarded a crucial. Secondly, concentration on what are admittedly broad subjects nevertheless provides the potential to select the most important developments. The subject of study will give shape to the necessary reduction of the complex setting. Thirdly, this constraint also makes it easier to provide a place for normative assumptions in the survey. Divergent normative views may well come into play in the selection of basic assumptions; at issue are subjects that are often highly controversial in social or political terms, so that it is difficult to avoid some form of normative bias. Precisely for this reason these topics lend themselves to research by an independent organization such as the WRR.

A strategy of this kind would result in surveys of the future that serve to illuminate the potential impact of divergent trends. The WRR's report 'Scope for Growth', published in 1987, is a good example of survey of this kind. The report developed an instrument whereby the consequences of divergent assumptions concerning economic trends could be made

apparent<sup>21</sup>. Attention to this category of subjects could be regarded as a present-day successor to the ATV and BTV. Clearly these are subjects which are more 'middle-range' in nature than these two studies. Instead of the earlier, broad surveys, the concern now is with 'thematic' surveys of the future.

The second way in which the WRR might tackle future research is related to the former. It is that the WRR might make further use of the forum system established for the ITV. As we have seen, there are now a number of centres for future research within the central government. Perspectives on the future are, however, also formed in various ways at local government level, and among universities, companies and non-governmental organizations. The task of communication and coordination in the field of future research assigned by law to the WRR places the Council in a position to fulfill a pivotal function between the government, society and the academic community. In substantive terms, this means that the formation of views on these strategic subjects – which form the subject of analysis in various policy and management networks both within and without government – should be the result of close consultation and debate with those networks. The Council's independent position can help ensure that such debate not only takes place but also yields results.

This pivotal and forum function can be fulfilled by periodically drawing up a survey of expectations of the future. The numerous bilateral contacts between the WRR, government departments and planning bureaus, and the discussion and debate in the supporting Forum, underline the importance of this forum function. What is required is not so much the coordination of views but the exchange of information and identification of new issues, trends or general problems. The anticipatory function that characterizes the WRR's prospective research needs to be stimulated by close contacts with the research community.

In those cases where, as noted, views on the future are also developed outside the government, a new survey should not – unlike the ITV – remain confined to future research undertaken under government auspices. In so far as they are relevant for government policy, studies undertaken by universities, industry and non-governmental organizations should also be included. Foreign sources also need to be tapped more systematically than at present. This applies not just to future research conducted in other countries but also to the experience elsewhere with problems that could arise in the Netherlands. Surveys composed along these lines could lead to a welcome broadening of the discussion about prospects for the future.

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<sup>21</sup>) WRR, *Ruimte voor groei; kansen en bedreigingen voor de Nederlandse economie in de komende tien jaar* (Scope for Growth: Threats to and Opportunities for the Dutch Economy over the next Ten Years): Report to the Government no. 29. The Hague, Staatsuitgeverij, 1987.

## ANNEX 1

### Composition of WRR Future Research Forum

Dr. W. Albeda (WRR)  
Dr. P. R. Baehr (WRR)  
Dr. W. Begeer (Central Bureau of Statistics)  
E. Berg (Association of Netherlands Municipalities)  
H.J. Brouwer (Ministry of Social Affairs and Employment); Dr. G.E. van Vliet (deputy)  
H. J. Dersjant (Ministry of Education and Science)  
Dr. W. van Drimmelen (WRR)  
Dr. J.J.M. van Dijk (Scientific Research and Documentation Centre, Ministry of Justice)  
J.P.J. Fit (National Physical Planning Agency); J.B.T. van Dam (deputy)  
P. Jansen Schoonhoven (Policy Analysis Branch, Ministry of Finance)  
R.M.A. Jansweijer (WRR)  
A.H.M. de Jong (Central Planning Office); C. van Paridon and H.R. Timmer (deputies)  
J.A. van de Kraats (Ministry of Transport and Public Works); P. Veninga and H.J.M. Verkooyen (deputies)  
Dr. A.M.J. Kreukels (WRR)  
Dr. D.J. Kuenen (former Chairman, Council for Environment and Nature Research)  
H.H.K. Labohm (Ministry of Foreign Affairs), succeeded by J.J. Visser  
Dr. A.P.N. Nauta (Social and Cultural Planning Office)  
C.M.I. Richter (Ministry of Housing, Physical Planning and Environmental Control), succeeded by H.E. Gordijn  
F.M. Roschar (WRR)  
H. Schartman (WRR)  
I.J. Schoonenboom (WRR, Secretary)  
R.F. Schreuder (Ministry of Welfare, Health and Cultural Affairs)  
Y.M.M. Starrenburg (WRR)  
Dr. F.J.A. Willekens (Netherlands Inter-University Demographic Institute), succeeded by Dr. J. de Jong-Gierveld; N. Keilman (deputy)  
Dr. C.T. de Wit (former Council member, WRR)  
W.C.L. Zegveld (Central Organization for Applied Scientific Research)

## ANNEX 2

### List of studies of the future included in the survey

Of the studies list below, a systematic survey has been compiled of the underlying assumptions. The conclusions in Part I of the report, which has been translated into English, are based on that survey, which is set out in Part II of the full Dutch report. The headings in the list correspond with the chapter arrangement in Part II. Although certain sources are discussed in more than one chapter, they are recorded below only once.

1. *International developments*
  - a. Various confidential internal memoranda of the Ministry of Foreign Affairs.
  - b. Defence White Paper 1984-1993; Parliamentary proceedings, 1983-1984 session, 18 169, nos. 1-2.
2. *Demographic developments*
  - a. Central Bureau of Statistics, *Bevolkingsprognose Nederland 1984-2035* (Population Projections for the Netherlands 1984-2035); The Hague, Staatsuitgeverij, 1986.
  - b. Central Bureau of Statistics, 'Bevolkingsprognose 1984; hypothesen betreffende de sterfte' (1984 Population Projection: Hypotheses concerning Mortality); *Maandstatistiek van de bevolking*, July 1985, Vol. 33 No. 7, pp. 48-60.
  - c. Central Bureau of Statistics, 'Bevolkingsprognose 1984; hypothesen betreffende de geboorte' (1984 Population Projection: Hypotheses concerning the Birth Rate); *Maandstatistiek van de bevolking*, August 1985, Vol. 33, no. 8, pp. 28-46.
  - d. Central Bureau of Statistics, 'Bevolkingsprognose 1984; hypothesen betreffende de nuptialiteit' (1984 Population Projection: Hypotheses concerning Nuptiality); *Maandstatistiek van de bevolking*, October 1985, Vol. 33, No. 10, pp. 50-68.
  - e. Central Bureau of Statistics, *Prognose van de bevolking van Nederland na 1980; deel 2; Modelbouw en hypothesevorming* (Population Projections for the Netherlands beyond the year 2000; Part 2: Model-Building and Hypothesis Formation); The Hague, Staatsuitgeverij, 1984.
  - f. Central Bureau of Statistics, 'Bevolkingsprognose voor Nederland, 1986-2035' (Population Projections for the Netherlands, 1986-2035); *Maandstatistiek van de bevolking*, February 1987, Vol. 34, No. 2, pp. 15-21.
  - g. Central Bureau of Statistics, 'Bevolkingsprognose voor Nederland, 1987-2035' (Population Projections for the Netherlands, 1987-2035); *Statistisch Bulletin*, 3 December 1987, Vol. 43, No. 47.
3. *Developments in the field of physical planning, housing and transport*
  - 3.1 Developments in the field of physical planning
    - a. National Physical Planning Agency, *Ruimtelijke Perspectieven, op weg naar de 4e nota over de ruimtelijke ordening* (Physical Planning Perspectives: on the way to the Fourth Physical Planning Report); The Hague, 1986.

- 3.2 Developments in housing
- b. Bureau for Strategic Market Research, *Tendrapport Volkshuisvesting 1982*, (Housing Trends Report), Delft, 1983.
  - c. Ministry of Housing, Physical Planning and Environmental Control, *Toetsing en Actualisering Tendrapport Volkshuisvesting; een onderzoek naar mogelijke ontwikkelingen* (Assessment and Updating of the Housing Trends Report; A Survey of Possible Developments); The Hague, 1985.
  - d. *Heroverweging 1985: Huur- en subsidiebeleid in de negentiger jaren; eindrapport van de werkgroep* (Rental and Subsidy Policy in the 1990s; final report by the Working Group); No. 78, 1985.
  - e. *Evaluatierapport 1986; Nieuwbouwprogrammering* (1986 Evaluation Report; Housebuilding Programming); Report No. 90, 1986.
  - f. H. van Fulpen, *Volkshuisvesting in demografisch en economisch perspectief* (Public Housing in Demographic and Economic Perspective); Sociale en Culturele Studies No. 8, The Hague, Staatsuitgeverij, 1985.
- 3.3 Developments in transport and communications
- g. Ministry of Transport and Public Works, *Op weg naar 2010; deel A: Probleemverkenning* (On the Way to 2010; Part A: A Survey of the Issues); internal memorandum.
  - h. Van den Broecke/Social Research, *De mogelijke groei van het personenautobezit tot 2010* (The Potential Growth in Car Ownership to 2010), The Hague, 1987.
  - i. Van den Broecke/Social Research, *De mogelijke groei van het personenautobezit na 2010* (The Potential Growth in Car Ownership after 2010), The Hague, 1987.
4. *Technological Developments*
- a. Advisory Committee on the Extension of Technology Policy, *Wissel tussen kennis en markt* (Bridge between Knowledge and the Marketplace), 1987.
  - b. TNO Study Centre for Technology and Policy, *Technology Assessment; op zoek naar een bruikbare aanpak* (Technology Assessment: In Search of a Usable Approach); Background Document 1 to the Policy Document on the Integration of Science and Technology in Society), The Hague, Staatsuitgeverij, 1987.
  - c. Ministry of Education and Science, *Het huidige internationale klimaat en beleidsbeslissingen inzake technische innovatie* (The current International Climate and Policy Decisions concerning Technical Innovation); The Hague, Staatsuitgeverij, 1978.
  - d. TNO Study Centre for Technology and Policy, *Aanzet voor inventarisatie van onderzoek in Nederland voor technologisch aspectenonderzoek (TA)* (Towards a Survey of Applied Technological Research in the Netherlands); 1987.
5. *Economic developments*
- a. Central Planning Office, *De Nederlandse economie op langere termijn; drie scenario's voor de periode 1985-2010* (The Dutch economy in the longer term: three scenarios for the period 1985-2010); Working Document No. 1, The Hague, 1985.
  - b. Scientific Council for Government Policy, *Ruimte voor groei; kansen en bedreigingen voor de Nederlandse economie in de komende tien jaar* (Scope for Growth; Threats to and Opportunities for the Dutch economy over the next ten years); Report to the Government No. 29, The Hague, Staatsuitgeverij, 1987.

6. *Developments in the field of the environment*
  - a. Ministry of Housing, Physical Planning and Environmental Control, *Lange-termijnontwikkelingen en provinciale milieubeleidsplannen; een haalbaarheidsstudie in Gelderland* (Long-Term Developments and Provincial Environmental Policy Plans; a Feasibility Study in Gelderland); Environmental Control Series No. 11, The Hague, Staatsuitgeverij, 1984.
  - b. Ministry of Housing, Physical Planning and Environmental Control, *Scenario's voor vier gevaarlijke stoffen in 2000* (Scenarios for Four Hazardous Substances in the year 2000); Environmental Control Series No. 6, The Hague, Staatsuitgeverij, 1986.
  - c. Health Council, *Deeladvies inzake CO<sub>2</sub>-problematiek* (Report on the CO<sub>2</sub> Problem); The Hague, Staatsuitgeverij, 1983.
  - d. Health Council, *CO<sub>2</sub>-problematiek; wetenschappelijke inzichten en maatschappelijke gevolgen. Tweede advies* (The CO<sub>2</sub> Problem: Scientific Insights and Social Impact. Second Report); The Hague, 1986.
  
7. *Developments in relation to marital and familial patterns*  
H. M. Langeveld, *Binding in vrijheid; een studie naar toekomstige gezinnen, relaties en hulpverlening* (The Ties of Freedom: A Study of the Family, Relationships and Care in the Future); Social and Cultural Studies No. 6, The Hague, Staatsuitgeverij, 1985.
  
8. *Educational developments*
  - a. Central Planning Office, *De Onderwijsprognose 1986; leerlingen, schoolverlaters en bevolking naar opleidingsniveau tot 2000* (The 1986 Education Projection: Pupil Numbers, School-leavers and the Population according to Education Level to the year 2000); Working Document No. 9, The Hague, 1986.
  - b. J. de Voogd, G. den Broeder en H. Stijnen, *De capaciteit van de universitaire en de nieuwe lerarenopleidingen; TEASE 85*; (The Capacity of University and new Teacher Training Courses; TEASE 1985); Rotterdam, 1986.
  - c. Ministry of Education and Science, *Ontwerp Hoger Onderwijs en Onderzoek Plan (HOOP)* (Draft Higher Education and Research Plan); The Hague, 1987.
  - d. Ministry of Education and Science, Explanatory Memorandum on the 1988 National Budget, Ch. VIII, Parliamentary Proceedings, 1987-1988 session, 20 200, Ch. VIII, No. 2.
  - e. Scientific Council for Government Policy, *Basisvorming in het onderwijs* (Basic Education), Report to the Government No. 27, The Hague, Staatsuitgeverij, 1986.
  
9. *Developments in the field of employment, social security and income*
  - 9.1 *Developments with respect to employment*
    - a. Ministry of Social Affairs and Employment, *Informatietechnologie en werkgelegenheid; inzichten en vooruitzichten* (Information Technology and Employment; Insights and Prospects); The Hague, 1986.
    - b. Central Planning Office, *De arbeidsmarkt naar opleidingscategorie 1975-2000* (The Labour Market according to Education and Training Category); Working Document No. 17, The Hague, 1987.
    - c. 'Demografische ontwikkeling en arbeidsmarkt' (Demographic change and the labour market); J. M. G. Frijns, B. Kuhry, A. Nieuwenhuis et al., in: *Demografische veranderingen en economische ontwikkelingen*; Koninklijke Vereniging voor Staathuishoudkunde, Preliminary reports 1987, Leiden/Antwerp, H. E. Stenfert Kroese BV, 1987.

- d. J.W. Becker, R. Vink, J.J. Godschalk, *Enige aspecten van arbeid in de toekomst; een verkenning tot het begin van de jaren negentig* (Some Aspects of Employment in the Future: a Survey up to the early 1990s); Social and Cultural Studies, No. 7, The Hague, Staatsuitgeverij, 1987.
  - e. Netherlands Institute of Economics, *Een verkenning van de arbeidsmarkt naar beroep en opleiding tot 1990* (Survey of the Labour Market by Profession and Training to 1990); OSA Working Document No. W17, The Hague, 1986.
  - f. W.H.J. Reynaerts, W.J.P.M. Fase, R. de Boer, *Bespiegelingen over de toekomst van de sociale partners*; OSA preliminary study No. 5, The Hague, 1985.
- 9.2 Developments in relation to social security and income
- g. Social and Cultural Planning Office, *Collective uitgaven en demografische ontwikkeling 1970-2030* (Public Expenditure and Demographic Trends 1970-2030); SCP paper No. 38, Rijswijk, 1984.
  - h. Social and Cultural Planning Office, *Vergrijzing, ontgroening en collectieve uitgaven* (Ageing, Fewer Young People and Public Spending), Occasional paper No. 33, Rijswijk, 1985.
  - i. Working Group to Review Demographic Trends and the Public Sector, *Demografische ontwikkelingen en de ontwikkeling van de collectieve sector* (Demographic Trends and the Development of the Public Sector); Parts I and II; 1986.
  - j. Central Planning Office, *De ouderdagsvoorziening tot 2030; de financieringsmogelijkheden op langere termijn* (Caring for the Elderly to the year 2000: Long-term Financing Potential); 1987.
  - k. Scientific Council for Government Policy, *Waarborgen voor zekerheid; een nieuw stelsel van sociale zekerheid in hofddlijnen* (Safeguarding Social Security); Report to the Government No. 26, The Hague, Staatsuitgeverij, 1985.
10. *Developments in the field of leisure*
- a. Interdepartmental Coordinating Committee on Welfare Policy, Leisure project group, *Vrije tijd; een visie* (Leisure: A Vision of the Future); Rijswijk, 1985.
  - b. A. Dernison and J. Elsinga, *Scenario's vrije tijd; een verkenning van de ruimtelijke gevolgen van mogelijke ontwikkelingen op het gebied van de vrije tijd* (Leisure Scenarios: a Survey of the Planning Implications of Potential Developments in the field of Leisure); The Hague, 1986.
11. *Developments in the field of health and the social services*
- 11.1 Developments with respect to health
- a. Over de ontwikkeling van gezondheidsbeleid: feiten, beschouwingen en beleidsvoornemens (Nota 2000) (On the Development of Health Policy: Facts, Observations and Policy Intentions (Towards the Year 2000)); Parliamentary Proceedings, 1985-1985 session, 19 500, Nos. 1-2.
- 11.2 Developments with respect to social services
- b. *Trendrapport kwartaire sectoren 1983-1990* (Trends in the Non-Profit Sectors 1983-1990), R. Goudriaan, H. de Groot, F. van Herwaarden, et al., SCP Paper No. 43, Rijswijk, 1984.
  - c. Social and Cultural Planning Office, *Memorandum Kwartaire Sector* (Memorandum on the Non-Profit Sector); SCP Paper No. 52, Rijswijk, 1986.
  - d. Steering Committee on Future Health-Care Scenarios, *Ouder worden in de toekomst; scenario's over gezondheid en vergrijzing 1984-2000* (Growing Old in the Future: Scenarios on Health and Ageing 1984-2000); Utrecht, Jan van Arkel, 1985.



12. *Developments in the field of law enforcement*
  - a. Samenleving en Criminaliteit; een beleidsplan voor de komende jaren (Society and Crime: A Policy Plan for the Coming Years); Parliamentary Proceedings, 1984-1985 session, 18 995, Nos. 1-2.
  - b. Structuurplan Penitentiare Capaciteit (Prison Capacity Structure Plan); Parliamentary Proceedings, 1984-1985 session, 18 996.

## The Council has published the following Preliminary and Background Studies (in Dutch)

### First term of office

- V 1 W.A.W. van Walstijn, Kansen op onderwijs: een literatuurstudie over ongelijkheid in het Nederlandse onderwijs (*Educational Opportunities: a Literature Study of Inequality in the Netherlands Educational System*) (1975)
- V 2 I.J. Schoonenboom en H.M. In 't Veld-Langeveld, De emancipatie van de vrouw (*Women's Emancipation*) (1976)
- V 3 G.R. Muster, Van dubbeltjes en kwartjes, een literatuurstudie over ongelijkheid in de Nederlandse inkomstenverdeling (*Dimes and Quarters: a Literature Study on Inequality in the Distribution of Income in the Netherlands*) (1976)
- V 4 J.A.M. van Weezel a.o., De verdeling en de waardering van arbeid (*The Distribution and Appreciation of Work*) (1976)
- V 5 A.Ch.M. Rijnen a.o., Adviseren aan de overheid (*Advising the Government*) (1977)
- V 6 Verslag Eerste Raadsperiode 1972-1977 (*Report on the First Term of Office*) (1972-1977)\*

### Second term of office

- V 7 J.J.C. Voorhoeve, Internationale Macht en Interne Autonomie (*International Power and Internal Autonomy*) (1978)
- V 8 W.M. de Jong, Techniek en wetenschap als basis voor industriële innovatie – Verslag van een reeks van interviews (*Technology and Science as a base for Industrial Innovation*) (1978)
- V 9 R. Gerritse, Instituut voor Onderzoek van Oveheidsuitgaven: De publieke sector: ontwikkeling en waardevervorming – Een vooronderzoek (*The Public Sector: Development and Valuation*) (1979)
- V10 Vakgroep Planning en Beleid/Sociologisch Instituut Rijksuniversiteit Utrecht: Konsumptieverandering in maatschappelijk perspectief (*Shifts in Consumption in a Social Perspective*) (1979)
- V11 R. Penninx, Naar een algemeen etnisch minderhedenbeleid? Opgenomen in rapport nr. 17 (*Towards an Overall Ethnic Minorities Policy? Attached to Report nr. 17*) (1979)
- V12 De quartaire sector – Maatschappelijke behoeften en werkgelegenheid – Verslag van een werkconferentie (*The Quarternary Sector: Societal Requirements and Employment Opportunities*) (1979)
- V13 W. Driehuis en P.J. van den Noord, Productie, werkgelegenheid en sectorstructuur in Nederland 1960-1985 (*Output, Employment and the Structure of Production in the Netherlands, 1960-1985*) Modelstudie bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)
- V14 S.K. Kuipers, J. Muysken, D.J. van den Berg en A.H. van Zon, Sectorstructuur en economische groei: een eenvoudig groeiemodel met zes sectoren van de Nederlandse economie in de periode na de tweede wereldoorlog (*The structure of Production and Economic Growth: a Simple Six-Sector Growth Model of the Dutch Economy in the Post-War Period*) Modelstudie bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)
- V15 F. Muller, P.J.J. Lesuis en N.M. Boxhoorn, Een multisectormodel voor de Nederlandse economie in 23 bedrijfstakken (*A Multi-Sector Model of the Dutch Economy Divided into 23 Branches of Industry*).  
F. Muller, Veranderingen in de sectorstructuur van de Nederlandse economie 1950-1990 (*Shifts in the Structure of Production in the Dutch Economy 1950-1990*). Modelstudie bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)
- V16 A.B.T.M. van Schaik, Arbeidsplaatsen, bezettingsgraad en werkgelegenheid in dertien bedrijfstakken (*Jobs, Capacity, Utilization and Employment Opportunities in Thirteen Branches of Industry*) Modelstudie bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)
- V17 A.J. Basoski, A. Budd, A. Kalff, L.B.M. Mennes, F. Racké en J.C. Ramaer, Exportbeleid en sectorstructuurbeleid (*Export Policy and Structural Policies*) Pre-adviezen bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)
- V18 J.J. van Duijn, M.J. Eleman, C.A. de Feyter, C. Inja, H.W. de Jong, M.L. Mogendorff en P. VerLoren van Themaat, Sectorstructuurbeleid: mogelijkheden en beperkingen (*Structural Policies: Prospects and Limitations*) Pre-adviezen bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)
- V19 C.P.A. Bartels, Regio's aan het werk: ontwikkelingen in de ruimtelijke spreiding van economische activiteiten in Nederland (*Putting Regions to Work: Trends in the Regional Distribution of Economic Activity in the Netherlands*) Studie bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)

- V20 M.Th. Brouwer, W. Driehuis, K.A. Koekoek, J. Kol, L.B.M. Mennes, P.J. van den Noord, D. Sinke, K. Vijlbrief en J.C. van Ours, Raming van de finale bestedingen en enkele andere grootheden in Nederland in 1985 (*Estimate of the Final Expenditure and some other Data in the Netherlands in 1985*) Technische nota's bij het rapport Plaats en toekomst van de Nederlandse industrie (1980)
- V21 J.A.H. Bron, Arbeidsaanbod-projecties 1980-2000 *Projections of the Labour Supply 1980-2000* (1980)
- V22 A. Faludi, R.J. in 't Veld, I.Th.M. Snellen en P. Thoenes, Benaderingen van planning; vier preadviezen over beleidsvorming in het openbaar bestuur (*Approaches to Planning*) (1980)
- V23 Beleid en toekomst (*Government Policy and the Future*), report of a symposium on the report Beleidsgerichte toekomstverkenning deel I (*Policy-Oriented Survey of the Future, Part I*) (1981)
- V24 L.J. van den Bosch, G. van Enkevort, Ria Jaarsma, D.B.P. Kallen, P.N. Karstanje, K.B. Koster, Educatie en welzijn (*Education and Welfare*) (1981)
- V25 J.C. van Ours, D. Hamersma, G. Hupkes, P.H. Admiraal, Consumptiebeleid voor de werkgelegenheid (*Consumption Policy for Employment*) Background reports to the report Vernieuwingen in het Arbeidsbestel (*Prospects for Reforming the Labour System*) (1982)
- V26 J.C. van Ours, C. Molenaar, J..A.M. Heijke, De wisselwerking tussen schaarsteverhoudingen en beloningsstructuur (*The interaction between Relative Scarcities and the Remuneration Structure*) Background reports tot the report Vernieuwingen in het Arbeidsbestel (*Prospects for Reforming the Labour System*) (1982)
- V27 A. A. van Duijn, W.H.C. Kerkhoff, L.U. de Sitter, Ch.j. de Wolff, F. Sturmans, Kwaliteit van de arbeid (*The Quality of Work*) Background reports to the report Vernieuwingen in het Arbeidsbestel (*Prospects for Reforming the Labour System*) (1982)
- V28 J.G. Lambooy, P.C.M. Huigsloot en R.E. van de Landgraaf, Greep op de stad? Een institutionele visie op stedelijke ontwikkeling en de beïnvloedbaarheid daarvan (*Getting Cities under Control? An Institutional Approach to Urban Development and its Controllability*) (1982)
- V29 J.C. Hess, F. Wielenga, Duitsland in de Nederlandse pers – altijd een probleem? Drie dagbladen over de Bondsrepubliek 1969-1980 (*Germany in the Dutch Press: Always a Problem? Reprting by three newspapers on West Germany, 1969-1980*) (1982)
- V30 C.W.A.M. van Paridon, E.K. Greup, A. Ketting, De handelsbetrekkingen tussen Nederland en de Bondsrepubliek Duitsland (*The Trading Relationship between the Netherlands and the Federal Republic of Germany*) (1982)
- V31 W.A. Smit, G.W.M. Tiemessen, R. Geerts: Ahaus, Lingen en Kalker; Duitse nucleaire installaties en de gevolgen voor Nederland (*Ahaus, Lingen and Kalkar: German Nucleat Facilities and their Implications for the Netherlands*) (1983)
- V32 J.H. von Eije: Geldstromen en inkomstenverdeling in de verzorgingsstaat (*Money Flows and the Distribution of Income in the Welfare State*) (1982)
- V33 Report on the Second Term of Office 1978-1982\*
- V34 P. den Hoed, W.G.M. Salet en H. van der Stuijs: Planning als onderneming (*Planning as a Form of Action*) (1983)
- V35 H.F. Munneke e.a.: Organen en rechtspersonen rondom de centrale overheid (*Administrative Bodies on the Periphery of Central Government*); two volumes (1983)
- V36 M.C. Brands, H.J.G. Beunders, H.H. Selier: Denkend aan Duitsland; een essay over moderne Duitse geschiedenis en enige hoofdstukken over de Nederlands-Duitse betrekkingen in de jaren zeventig (*Thinking about Germany; An Essay on Modern German History, with some Chapters on Dutch-German Relations in the Seventies*) (1983)
- V37 L.G. Gerrichhauzen: Woningcorporaties; Een beleidsanalyse (*Housing Corporations: A Policy Analysis*) (1983)
- V38 J. Kassies, Notities over een heroriëntatie van het kunstbeleid (*Notes on a Reorientation of Policy on the Arts*) (1983)
- V39 Leo Jansen, Sociocratische tendenties in West-Europa (*Sociocratic trends in Western Europe*) (1983)

### Third term of office

- V40 G.J. van Driel, C. van Ravenzwaaij, J. Spronk en F.R. Veeneklaas: grenzen en mogelijkheden van het economisch stelsel in Nederland (*Limits and Potential of the Economic System in the Netherlands*) (1983)
- V41 Adviesorganen in de politieke besluitvorming (*Advisory Bodies in the Political Decision-Making Process*); Report of a symposium by A.Th. van Delden and J. Kooiman (1983)

- V42 E.W. van Luijk, R.J. de Bruijn: Vrijwilligerswerk tussen betaald en onbetaald werk: een verkennende studie op basis van een enquête (*Volunteering between Paid and Unpaid work; an Exploratory Study Based on a Survey*) (1984)
- V43 Planning en beleid (*Planning and Policy*); Report of a Symposium on the Study Planning as a Form of Action (1984)
- V44 W.J. van der Weijden, H. van der Wal, H.J. de Graaf, N.A. van Brussel, W.J. ter Keurs: Bouwstenen voor een geïntegreerde landbouw (*Towards an Integrated Agriculture*) (1984)\*
- V45 J.F. Vos, P. de Koning, S. Blom: Onderwijs op de tweesprong: over de inrichting van basisvorming in de eerste fase van het voortgezet onderwijs (*The organization of the Core Curriculum in the First Stage of Secondary Education*) (1985)
- V46 G. Meester, D. Strijker: Het Europese landbouwbeleid voorbij de scheidslijn van zelfvoorziening (*The European Agricultural Policy Beyond the Point of Self-Sufficiency*) (1985)
- V47 J. Pelkmans: De interne EG-markt voor industriële producten (*The Internal EC-Market for Industrial Products*) (1985)\*
- V48 J.J. Feenstra, K.J.M. Mortelmans: Gedifferentieerde integratie en Gemeenschapsrecht: institutioneel- en materieelrechtelijke aspecten (*Differentiated Integration and Community Law: Institutional and Substantive Aspects*) (1985)
- V49 T.H.A. van der Voort, M. Beishuizen: Massamedia en basisvorming (*Mass Media and the Core Curriculum*) (1986)
- V50 C.A. Adriaansens, H. Priemus: Marges van volkshuisvestingsbeleid (*Margins of Housing Policy*) (1986)
- V51 E.F.L. Smeets, Th.J.N.N. Buis: Leraren over de eerste fase van het voortgezet onderwijs (*Teachers' Opinions in the First Stage of Secondary Education*) (1986)
- V52 J. Moonen: Toepassing van computersystemen in het onderwijs (*The Use of Computer Systems in Education*) (1986)
- V53 A.L. Heinink, H. Riddersma: Basisvorming in het buitenland (*An International Comparison of Core Curricula*) (1986)
- V54 Zelfstandige bestuursorganen (*Quasi-Autonomous Non-Governmental Organisations*) Verslag van de studiedag op 12 november 1985 (1986)
- V55 Europese integratie in beweging (*European Integration in Motion*) Verslag van een conferentie, gehouden op 16 mei 1986 (1986)
- V56 C. de Klein, J. Collaris: Sociale ziektekostenverzekeringen in Europees perspectief (*National Health Insurance in a European Perspective*) (1987)
- V57 R.M.A. Jansweijer: Private leefvormen, publieke gevolgen (*Private Households, Public Consequences*) (1987)
- V58 De ongelijke verdeling van gezondheid (*The Unequal Distribution of Health*) Verslag van een conferentie op 16-17 maart 1987 (1987)
- V59 W.G.M. Salet: Ordening en sturing in het volkshuisvestingsbeleid (*Regulation and Management of Housing Policy*) (1987)
- V60 H.G. Eijgenhuijsen, J. Koelewijn, H. Visser: Investerings en de financiële infrastructuur (*Investments and the Financial Infrastructure*) (1987)
- V61 H. van der Sluijs: Ordening en sturing in de ouderenzorg (*Regulation and Management of Care for the Eldery*) (1980)
- V62 Report on the Third Term of Office 1983-1987\*

#### Fourth term of office

- V63 Milieu en groei (*Environmental Control and Growth*) Verslag van een studiedag op 11 februari 1988 (1988)
- V64 De maatschappelijke gevolgen van erfelijkheidsonderzoek (*Social consequences of Genetic Research*) Verslag van een conferentie op 16-17 juni 1988 (1988)

\* Also available in English.

**The Council commissioned a number of experts to carry out preliminary studies for the report 'A Coherent Media Policy'. The following studies were published in a separate series entitled 'Media Policy Background and Preliminary Studies' (in Dutch):**

- M 1 J.M. de Meij: Overheid en uitingsvrijheid (*The Government and Freedom of Speech*) (1982)
- M 2 E.H. Hollander: Kleinschalige massacommunicatie; locale omroepvormen in West-Europa (*Small-scale Mass Communications: Local Broadcasting Forms in Western Europe*) (1982)
- M 3 L.J. Heinsman/Nederlandse Omroep Stichting: De kulturele betekenis van de instroom van buitenlandse televisieprogramma's in Nederland – Een literatuurstudie (*The Cultural Significance of the Inflow of Foreign Television Programmes in the Netherlands – A Survey of the Literature*) (1982)
- M 4 L.P.H. Schoonderwoerd, W.P. Knulst/Sociaal en Cultureel Planbureau: Mediagebruik bij verruiming van het aanbod (*Media Use and a Wider Media Range*) (1982)
- M 5 N. Boerma, J.J. van Cuilenburg, E. Diemer, J.J. Oostenbrink, J. van Putten: De omroep: wet en beleid; een juridisch-politicologische evaluatie van de Omroepwet (*Broadcasting – Legislation and Government Policy: A Legal and Political Evaluation of the Broadcasting Act*) (1982)
- M 6 Intomart B.V.: Etherpiraten in Nederland (*Radio Pirates in the Netherlands*) (1982)
- M 7 P.J. Kalff/Instituut voor Grafische Techniek TNO: Nieuwe technieken voor productie en distributie van dagbladen en tijdschriften (*New Techniques for the Production and Distribution of Newspapers and Magazines*) (1982)
- M 8 J.J. van Cuilenburg, D. McQuail: Media en pluriformiteit; een beoordeling van de stand van zaken (*The Media and Diversity: An Assessment of the State of Affairs*) (1982)
- M 9 K.J. Alsem, M.A. Boorman, G.J. van Helden, J.C. Hoekstra, P.S.H. Leeftang, H.H.M. Visser: De aanbodsstructuur van de periodiek verschijnende pers in Nederland (*The Supply Structure of Regular Press Publications in the Netherlands*) (1982)
- M10 W.P. Knulst/Sociaal en Cultureel Planbureau: Mediabeleid en cultuurbeleid; Een studie over de samenhang tussen de twee beleidsvelden (*Media Policy and Cultural Policy: A Study of the Interrelationship between the two Fields of Policy*) (1982)
- M11 A.P. Bolle: Het gebruik van glasvezelkabel in lokale telecommunicatienetten (*The Use of Fibre Optic Cable in Local Telecommunications Networks*) (1982)
- M12 P. te Nuyt: Structuur en ontwikkeling van vraag en aanbod op de markt voor televisieproducties (*The Structure and Development of Demand and Supply in the Market for Television Productions*) (1982)
- M13 P.J.M. Wilms/Instituut voor Onderzoek van Overheidsuitgaven: Horen, zien en betalen; een inventariserende studie naar de toekomstige kosten en bekostigingen van de omroep (*Listening, Viewing and Paying: An Inventory Study of the Future Cost and Funding of Broadcasting*) (1982)
- M14 W.M. de Jong: Informatietechniek in beweging, consequenties en mogelijkheden voor Nederland (*Information Technology in Flux: Consequences and Possibilities for the Netherlands*) (1982)
- M15 J.C. van Ours: Mediaconsumptie; een analyse van het verleden, een verkenning van de toekomst (*Media Consumption: An Analysis of the Past and Survey of the Future*) (1982)
- M16 J.G. Stappers, A.D. Reijnders, W.A.J. Möller: De werking van massamedia; een overzicht van inzichten (*The operation of Mass Media: A Survey of the State of Understanding*) (1983)
- M17 F.J. Schrijver: De invoering van kabeltelevisie in Nederland (*The Introduction of Cable in the Netherlands*) (1983)

**The Council has published the following Reports to the Government**

**First term of office**

1. *Europese Unie* (European Union), 1974.
2. *Structuur van de Nederlandse economie* (Structure of the Netherlands Economy), 1974.
3. *Energiebeleid op langere termijn* (Long-term Energy Policy), 1974. Reports 1 to 3 are published in one volume.
4. *Milieubeleid* (Environment Policy), 1974.
5. *Bevolkingsprognoses* (Population Forecasis), 1974.
6. *De organisatie van het openbaar bestuur* (The Organization of Publics Administration), 1975.

7. *Buitenlandse invloeden op Nederland: Internationale migratie* (Foreign Influence on the Netherlands: International Migration), 1976.
8. *Buitenlandse invloeden op Nederland: Beschikbaarheid van wetenschappelijke en technische kennis* (Foreign Influence on the Netherlands: Availability of Scientific and Technical Knowledge), 1976.
9. *Commentaar op de Discussienota Sectorraden Wetenschapsbeleid* (Comments on the discussion Paper on Sectoral Council of Science Policy), 1976.
10. *Commentaar op de nota Contouren van een toekomstig onderwijsbestel* (Comments on the White Paper on the Contours of the Future Education System), 1976.
11. *Overzicht externe adviesorganen van de centrale overheid* (Survey of external Advisory Bodies of the Central Government), 1976.
12. *Externe adviesorganen van de centrale overheid, beschrijving, ontwikkelingen, aanbevelingen* (External Advisory Bodies of the Central Government: Description, Developments, Recommendations), 1977.
13. *'Maken wij er werk van?' Verkenningen omtrent de verhouding tussen actieven en niet-actieven* 'Do we make Work our Business?' An Exploratory Study of the Relations between Economically Active and Inactive Persons), 1977.
14. *Overzicht interne adviesorganen van de centrale overheid* (Survey of Internal Advisory Bodies of the Central Government), 1977.
15. *De Komende vijftig jaar, een toekomstverkenning voor Nederland* (The Next Twenty-Five Years: a Survey of Future Developments in the Netherlands), 1977.
16. *Over sociale ongelijkheid, een beleidsgerichte probleemverkenning* (On Social Inequality: a Police-oriented Study), 1977.

#### Second term of office

17. *Etnische minderheden – A. Rapport aan de regering; B. Naar een algemeen etnisch minderhedenbeleid?* (Ethnic minorities – A. Report to the Government: B. Towards an Overall Ethnic Minorities Policy?), 1979.
18. *Plaats en toekomst van de Nederlandse industrie* (Industry in the Netherlands: its Place and Future), 1980.
19. *Beleidsgerichte toekomstverkenning: deel 1. Een poging tot uitlokking* (A Policy-oriented Survey of the Future: Part 1. An Attempt to Challenge), 1980.
20. *Democratie en geweld – Probleemanalyse naar aanleiding van de gebeurtenissen in Amsterdam op 30 april 1980* (Democracy and Violence – an Analysis of Problems in Connection with the Events in Amsterdam on April 30, 1980), 1980.
21. *Vernieuwing in het arbeidsbestel* (Prospects for Reforming the Labour System), 1981.
22. *Herwaardering van welzijnsbeleid* (A Reappraisal of Welfare Policy), 1982.
23. *Onder invloed van Duitsland. Een onderzoek naar gevoeligheid en kwetsbaarheid in de betrekkingen tussen Nederland en de Bondsrepubliek* (The German Factor. A Survey of Sensitivity and Vulnerability in the Relationship between the Netherlands and the Federal Republic), 1982.
24. *Samenhangend mediabeleid* (A Coherent Media Policy), 1982.

#### Third term of office

25. *Beleidsgerichte toekomstverkenning: deel 2; Een verruiming van perspectief* (A Policy-oriented Survey of the Future: Part 2: Towards a Broader Perspective), 1983.
26. *Waarborgen voor zekerheid; een nieuw stelsel van sociale zekerheid in hoofdlijnen* (Safeguarding Social Security), 1985.
27. *Basisvorming in het onderwijs* (Basic Education), 1986.
28. *De onvoltooide Europese integratie* (The Unfinished European Integration), 1986.
29. *Ruimte voor Groei* (Scope for Growth), 1987.
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32. *De financiering van de Europese Gemeenschap* (Financing the European Community), 1987.
33. *Activerend arbeidsmarktbeleid* (An Active Labour Market Policy), 1987.
34. *Overheid en toekomstonderzoek* (Government and Future Research), 1988.

Reports nos. 13, 15, 17, 18, 28 and 31 have been translated into English; English summaries are available of Reports nos. 16, 18, 19, 20, 25-34; Report no 23 has been translated into German.