

# Summary of products on Nature and Health

## 1 Introduction

### Findings of the first partial advisory report on Nature and Health

The first advisory report on Nature and Health dating from 2004, compiled by the Health Council and the Advisory Council for Research on Spatial Planning, Nature and the Environment (RMNO), in cooperation with the Advisory Council on Health Research (RGO), the Innovation Network (Innonet), The Council for the Rural Area (RLG) and the Consultative Committee of Sector Councils (COS), explored the available scientific knowledge relating to the extent to which nature has positive benefits for health. One aspect of this study looked at indications for a direct positive relationship between nature and health. A further aspect explored the specific status of knowledge for some five socially relevant working mechanisms. The general conclusion of the first advisory report was:

“The consistent indications, arising from a broad range of experimental and descriptive research projects, support the belief that nature exercises a positive influence on health. If the assumptions on the type and extent of this influence are confirmed in subsequent research, this will underline the importance of greater attention being paid in government policy to green interventions which are experienced in practice by many people as beneficial to health.”

### Requirements from policy for a second advisory report

Against the background of the above-mentioned conclusion from part 1 and increasing social relevance, the desires based on the policies of the Ministries of Health, Wellbeing and Sport (VWS), Agriculture, Nature and Food Quality (LNV) and Housing, Spatial Planning and the Environment (VROM), and in consultation with the Health Council, the Advisory Council for Health Research and the Advisory Council for Research on Spatial Planning, Nature and the Environment have been translated into a project plan on Nature and Health Part 2.

The desires expressed by the Ministries can be summarized as follows: to assist the government and administrators in the private sector in achieving attractive and user-friendly types of nature and nature activities or an appropriate use of nature such that this can contribute to the good health of specific user groups. In terms of the practical application of the insights and recommendations from the first advisory report, the prime focus should be on making knowledge which is already in existence more readily available, and offering guidelines to local administrators. In addition, conducting a review of essential practical knowledge which is lacking and

the knowledge infrastructure which is necessary for the coming years can contribute to expanding the desired insight into the longer term.

The Ministries see an important role for a series of meetings with the network of actors in Nature and Health in disseminating and implementing the practical knowledge which is already available. They have requested the development of a range of practice-oriented products to complement these meetings. The focus in this whole project should be directed towards four policy themes: prevention of health complaints, remedying of health complaints, physical exercise and recreation, and child development.

The requirements of VWS, LNV and VROM formed the basis for a joint request for a recommendation on Nature and Health from the Advisory Council for Research on Spatial Planning, Nature and the Environment, in cooperation with the Council for Health Research (RGO) and the Council for the Rural Area (RLG).

### **Meetings and products of the second advisory report**

The Nature and Health project started in the Spring of 2006. To promote the dissemination and implementation of existing practical knowledge, and to gain input for the products to be developed, planned actions included the following meetings which were held with the network of actors:

- Congress on: 'The Green, Healthy City' 11/2005, in advance of the start of the project;
- Round table meeting on Nature and Health with local authorities in 9/2006;
- Brainstorming session on Nature and Health with local users in 2/2007;
- Congress on: 'Nature and Health, How to move forward?' in 4/2007.

Based in part on these meetings, the following additional application-oriented products have been developed. They form a cohesive package of proposals. They will be explained in the following paragraphs:

- Prototype of a website/database with examples from practice;
- Related excel lists with some eighty examples from practice;
- Guidelines for local government/managers/administrators;
- Policy recommendations on linking health and nature
- Knowledge agenda.

## **2 Prototype website/database with examples from practice**

### **Objective and target group**

With a view to making available already existing practical knowledge, the intended website/database with practical examples on Nature and Health has a twofold objective. On the one hand, drawing on a large number of practical examples and search options, it should inform, inspire and

encourage local and regional parties to promote the application of existing insights on nature and health in practice. On the other hand, the website/database aims to offer a useful and inspiring source of practical examples, also for researchers, as the starting point for further research on building up 'evidence', and to promote the application of existing insights.

In line with the broad objective, the target group for the website/database is also broad. The primary focus is with those involved in practice within local municipalities, provinces, recreation authorities and Municipal Health Services (GGD). In addition, the database fulfils a function for a wide range of researchers and other interested parties. On the one hand, these parties can make use of the practical examples; on the other, it is important that these parties also feed the database with new examples from practice and with insights from continuing research. This will generate a dynamic, up to date database which can play a unifying role between different sectors in society.

### **Prototype Nature and Health website/database**

The prototype of the Nature and Health website/database with the practical examples mentioned can be viewed at [www.natuurengesondheid.nl](http://www.natuurengesondheid.nl). This is a demonstration site which currently contains some 25 examples which have been elaborated in detail. The examples can be searched using a number of search categories and key terms. As no decision has yet been made on the future management of the database, the site has not been officially launched. You are therefore requested not to disseminate the information further to other parties. It is expected that in due course a communication plan will be drawn up to officially launch the database.

### **Main and sub-list with practical examples**

Between 2006 and January 2007, an inventory was made of more than eighty practical examples in the area of Nature and Health, such as Green Gym, Speeldernis, Osira Group Gardens and Artalievegoedgroep-Hamingen. The priority policy themes mentioned previously were borne in mind here. As no decision has yet been taken on the future management of the database, the practical examples have for the time being been put into two Excel lists with a limited search function; one main list and a sub-list. In the future, the Nature and Health examples from these lists will be included in the definitive Nature and Health website/database. The main list currently comprises some forty different practical examples which are generally in line with the selection criteria as defined. These are the most appropriate examples for inclusion in the website/database. A number of them have already been included in the current prototype website/database. The relevant examples have been indicated in bold in the excel list. Apart from the main list, a sub-list has been compiled with further examples. This list contains some fifty practical examples which can provide additional inspiration for those involved in practice and for researchers in achieving new practices and continuing practical research.

### 3 Guidelines for local authorities

#### **Objective, target group and structure**

The guidelines product for local authorities is intended to offer help and support to local and regional managers in setting up, continuing, maintaining or improving practices in the area of Nature and Health.

The guidelines focus on specific groups of local and regional managers who are involved in a particular type of practical model and who are considering further developing the Nature and Health theme in practice. The relevant managers are indicated in each of the four practical models.

Four key practical models have been developed in the area of Nature and Health, relating to four priority policy themes. These are Walking Networks, Green Rooms in Care Centres, Care Farms and Nature Playgrounds. They can offer opportunities for promoting physical exercise, preventing health problems, remedying health complaints, and child development. The structure and effects of each type of practical example have been sketched, both from a scientific perspective and from the perspective of practical experience. For each type of practical model, a summary has then been given of the opportunities and restrictions which managers may meet in setting up, continuing and maintaining such practices. The opportunities and restrictions have been translated into a number of guidelines.

#### **Guidelines for Walking Networks - to improve physical exercise**

Local authorities, Municipal Health Centres, recreational institutions, project developers and the environmental movement, and property managers/owners:

- improve the cooperation between the tiers of government regionally to promote the smooth construction of regional footpaths/cycle paths which cross the boundaries of local authorities;
- ensure there are sufficient members of staff involved in recreation within municipalities and other organizations;
- arrange structural financing for the construction and maintenance of footpaths;
- raise the awareness of organizations such as Walking Networks in the local health sector and among local residents;
- try to remove spatial barriers which obstruct the links between the city and the surrounding countryside;
- in constructing new infrastructure for fast-moving traffic, take into account existing infrastructure for pedestrians and cyclists.

#### **Guidelines relating to Green Rooms and Care Centres - prevention of health complaints**

Managers of municipalities, provinces, health sector, care for the elderly, healthcare insurers and business sector:

- take into account the specific requirements and possibilities of the user group;
- where necessary, supplement the knowledge gap among managers regarding the positive effects of nature on health;
- as well as ‘form’ and quantity, also pay attention to the ‘content’ and quality of the care institution;
- try to create a comparable finance base for green projects in care institutions, as for budget items ‘interior’ and ‘art’;
- always bear in mind that ‘green’ and the related health benefits can become a visiting card for a care institution and can contribute to improving the institution’s image;
- try to organize broader support for innovative concepts such as Green Rooms.

#### **Guidelines relating to Care Farms - to remedy health complaints**

Managers of municipalities, provinces, agricultural institutions, healthcare insurers and managers of a care farm or similar institution:

- ensure consistency in government policy in the longer term;
- create the opportunity for improved financing if new insights indicate a more favourable cost/benefit consideration of this care concept;
- adopt a well-considered approach to gradually developing the institutionalisation of the concept of the care farm.

#### **Guidelines for Nature Playgrounds - child development**

Managers of municipal councils and provinces, and playground managers:

- ensure the availability of good information relating to the relatively high added value of nature playgrounds, in terms of low construction and maintenance costs;
- provide clearer regulations for the design of nature playgrounds relating to the Act on Amenities and Playground Equipment;
- be creative and change city ‘visual green’ into functional ‘play green’;
- also pay attention to creating facilities for outdoor play areas in a natural environment when planning the areas around housing;
- try simultaneously to increase health opportunities and to avoid risks in the design and maintenance of green play areas: treat nature with intelligence;
- when considering administrative arrangements, include the added value for child development of play in a natural environment compared to play in indoor facilities.

## **4 Policy Recommendations on linking Health and Nature**

### **Linking the supply and demand of nature and health at regional level**

A more extensive use of ‘nature’ for health is within reach. The new task is to bring together the ‘sectoral institutions’ of health, nature and spatial planning policy and focus on a better use of nature for health. The use of

nature - in the form of natural areas, green areas in and around the city and cultural landscapes – for health should be implemented at regional level. It is only from a regional demand and supply analysis (the demand from healthcare demand and the supply from nature) that the supply can be adapted to meet the demand from healthcare.

### **Government tasks**

It is the task of the government to safeguard the public interest with regard to using nature for health. In so doing, the government does not have to carry out the necessary actions itself, but should ensure that activities take place which safeguard public interests. From this viewpoint, it is the responsibility of the national government to make all parties aware of the possibilities of nature for health, to oversee the process in order to bring the relevant parties together at national level (system responsibility) and to facilitate the implementation at local/regional level with knowledge, financial resources and the use of instruments from, for example, spatial planning.

The provinces, which play a role in formulating policies relating to nature, are responsible for organizing natural resource such that the function of nature for health is realized at local/regional level. In so doing, they are supported by the Inter-provincial Consultative Body (IPO). On the grounds of their responsibility for health and the public green areas at local/regional level, the municipalities, supported by the Association of Netherlands Municipalities (VNG), have the task of stimulating and directing the necessary process at this level.

### **Tasks of the social organizations**

Social organizations in the field of healthcare and nature are excellently able, partly facilitated by the government, to stimulate awareness and from the interests of patients/consumers to formulate what use of nature is needed and possible for the benefit of health. Healthcare institutions and managers of natural environments are in a position to provide a firm structure for how nature can be applied in order to fulfil its function in the promotion of health by organizing and managing nature areas and promoting the use of these areas. Those financing healthcare can make a financial contribution to the use of nature on the basis of their specific wishes and on a cost-benefit analysis.

### **Recommendations for the administrative organization**

A more extensive use of nature for health will not come about of its own accord. The local authorities propose the following recommendations for achieving the necessary administrative organization:

- 1 The councils recommend the ministers, members of parliament and local councillors to indicate their commitment to these public interests within six months by:

- a Determining how supra-departmental responsibilities will be structured presenting an interdepartmental policy intention to parliament;
  - b Indicating the contribution which can be expected from the provinces and by presenting this to Provincial Council;
  - c Investigating how the own responsibility of the local councils currently manifests itself and, if necessary, what form this should take, and presenting this to the municipal council.
- 2 The councils recommend the societal actors to formulate their own position, and to ensure this is included in the discussion.
  - 3 The councils recommend government bodies, social organizations, healthcare institutions, nature managers, financiers of healthcare and knowledge institutions to together formulate a national approach. This national approach will bring together the interests of all parties; the responsibilities will be shared in global terms and within six months an action programme will be drawn up to stimulate and facilitate local/regional actors. The national action programme should within two years lead to local/regional implementation plans for applying nature for health.

## 5 Knowledge Agenda on Nature and Health

### Objective

The objective of the Knowledge Agenda on Nature and Health is to outline the practical knowledge which is lacking and which is needed for the effective application of the various practical insights. A further aim of the Agenda is to meet the need to broaden insights into the longer term. The knowledge requirements and the knowledge infrastructure necessary to meet these requirements in the longer term will be catalogued, based on current political and policy themes and on a societal analysis of the issue.

The agenda has been constructed around some four key elements: (1) health benefits, (2) user groups, (3) the natural environment and (4) the administrative organization. The possible health benefits to be anticipated will be determined in the exchanges between user groups, the natural environment and the administrative organization. The inter-relationships between the key elements are of prime importance. As each key element is further split into different types and sub-aspects, the Knowledge Agenda as a whole comprises a broad range of different relations, all of which can be of considerable value.

The model of the four key elements appears to have a useful role in the achievement of important policy themes. The model shows the contributions which can be forthcoming from the field of Nature and Health for the various policy themes. The model also clearly demonstrates the multifunctionality of the natural environment in generating health benefits. If VWS,

LNV, VROM, JG, WWI and OCW work together in providing input for the field of nature and health, this will create added value for a large number of policy themes. Societal organizations and individual initiatives can also play a significant role here.

### Knowledge Agenda – a summary of the key knowledge questions

The knowledge agenda indicates prime and sub-issues for each of the key elements. The prime areas of emphasis are:

*Health benefits.* The emphasis is on determining the effectiveness of particular practices in the area of nature and health. (a) What health effects are derived from making use of nature; to what degree do these effects actually occur (cost-benefit relationship)? (b) How can intelligent combinations of effects be achieved for the different user groups using nature, such as to achieve optimum health benefits?

*User groups.* The emphasis is on involving children and parents. (a) What aspects of the priority user groups are important in achieving the desired health benefits? (b) In what way do conditioning, expectations and awareness influence the health benefits of a particular nature activity for a specific user group?

*Natural environment.* The emphasis is on developing more knowledge about the possibilities for applying nature to achieve specific health benefits. (a) What types of natural environments are most suitable for the different user groups to achieve the desired health benefits? (b) How can diverse types of nature and nature activities be organized so that they are attractive for different groups of users and can make an optimum contribution to health?

*Administrative organization.* The emphasis is on gaining insight into the broader social cost savings which can be made by focusing on the use of nature. (a) What is the optimal division of roles between the organizations involved in order to achieve health benefits using nature? (b) How can diverse administrative aspects (finances, responsibilities, cooperation and operational perspectives) be organized such that the right types of nature are used and to the most appropriate extent?

When the Knowledge Agenda is developed further at a later stage, specific attention will have to be paid to defining the relations between the four key elements in greater detail. An indication is given below of how this can be achieved.

### Required infrastructure for knowledge development

In addition to the positive indications from the first partial advisory report, social interest in this issue is increasing, and many policy themes and current political priorities have areas of overlap with the field of nature and

health. It is therefore essential to broaden the initial activities on infrastructure which are already in place in the Netherlands into a European knowledge network. Facilitating a 'learning network' where researchers and individuals involved locally in the field of Nature and Health regularly meet with one another is an essential requirement. A dynamic research programme on nature and health will be further elaborated and applied, based on the outcomes of regular discussions in the learning network. The database with practical examples on Nature and Health may be a useful tool here.

In the future translation of the knowledge questions into research questions, the relations which are relevant for a particular research question should be carefully specified in line with the sub-aspects of the key elements. This can best be done by organizing a number of workshops with researchers and stakeholders. It is in any event recommended to choose sub-aspects which have some overlap with the central themes of Cabinet policy. Preventative measures to promote good health, youth issues, problem neighbourhoods and a healthy living environment are the key themes of the Cabinet. Considerable added value could be derived from focusing the research questions on these four themes.

A further research programme on current research projects and programmes is most desirable. Increasing indications for health benefits and other social benefits of natural environments, as well as major scientific challenges in the area of nature and health justify a further research programme with a 'learning network'.

1. Fundamental research	6 mln euro / 5 years
2. Innovative small-scale research	2 mln euro / 5 years
3. Monitoring and evaluating practical examples	2 mln euro / 5 years
4. Learning network of researchers and experts from practice	1 mln euro / 5 years

In conclusion, a one-time investment of ca. 11 million euro for the coming five years is sufficient to conduct optimal research into the opportunities which nature offers for healthcare.

## Abbreviations

COS	Commissie voor Overleg Sectorraden / Consultative Committee of Sector Councils
GGD	Gemeentelijke Geneeskundige Dienst / Municipal Health Service
GR	Gezondheidsraad/ Health Council
JG	Programmadirectie Jeugd en Gezin / Sphere of work of the Project Minister for Youth and the Family
Innonet	Innovatienetwerk Groene Ruimte en Agrocluster / Innovation Network for Green Areas and the Agricultural Sector
IPO	Interprovinciaal Overlegorgaan / Inter-provincial Consultative Body
LNV	Ministerie van Landbouw, Natuur en Voedselkwaliteit / Ministry of Agriculture, Nature and Food Quality
OCW	Ministerie van Onderwijs, Cultuur en Wetenschap / Ministry of Education, Culture and Science
RGO	Raad voor Gezondheidsonderzoek / Advisory Council for Health Research
RLG	Raad voor het Landelijk Gebied / Council for the Rural Area
RMNO	Raad voor Ruimtelijk, Milieu- en Natuuronderzoek / Advisory Council for Research on Spatial Planning, Nature and the Environment
VNG	Vereniging voor Nederlandse Gemeenten / Association of Netherlands Municipalities
VROM	Ministerie van Volkshuisvesting, Ruimtelijke ordening en Milieu / Ministry of Housing, Spatial Planning and the Environment
VWS	Ministerie van Volksgezondheid, Welzijn en Sport / Ministry of Health, Wellbeing and Sport
WWI	Programmadirectie Wonen, Wijken en Integratie / Sphere of work of the Project Minister for Housing, Communities and Integration
ZonMw	Nederlandse organisatie voor gezondheidsonderzoek en zorginnovatie / Netherlands Organization for Health Research and Development

