

# Climate Landscapes®

## – local and regional policy making for sustainability

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### Abstract

Reconstruction and revitalisation of local/regional areas is high on the political agenda in Europe. In the Netherlands the concept of Climate Landscapes has been developed and put into practice, to integrate sustainability in the process.

Because those responsible for each policy see things from the perspective of their own priorities it is difficult to get everybody directed towards the common goal. In this respect, the concept of Climate Landscapes provides a binding focus. By establishing links that transcend policy areas, it emerges that apparently competing claims can be reconciled. It links the possibilities within the three themes of sustainability, profit, people and planet, for sustainable development.

Climate Landscapes is an appeal to firmly anchor sustainable energy in the actual plans for local and regional development. First practical experiences show that the concept really works and yields positive effects.

### Introduction

*Climate Landscapes* are areas of municipalities, urban or rural, in which Energy Efficiency (EE), and Renewable Energy

Sources (RES) and Rational Use of Energy (RUE) culminate into sustainable energy systems (SES) that can be integrated into spatial planning and socio-economic development. Communities adopting this holistic approach are effectively Sustainable Energy Communities (SEC).

First pilots are operating in areas of the Netherlands across rural, village and city landscapes. The Climate-Landscapes approach integrates RUE, EE and RES with nature conservation, creation of recreational areas, creation of new employment, economic development and spatial planning.

### The Main Aim

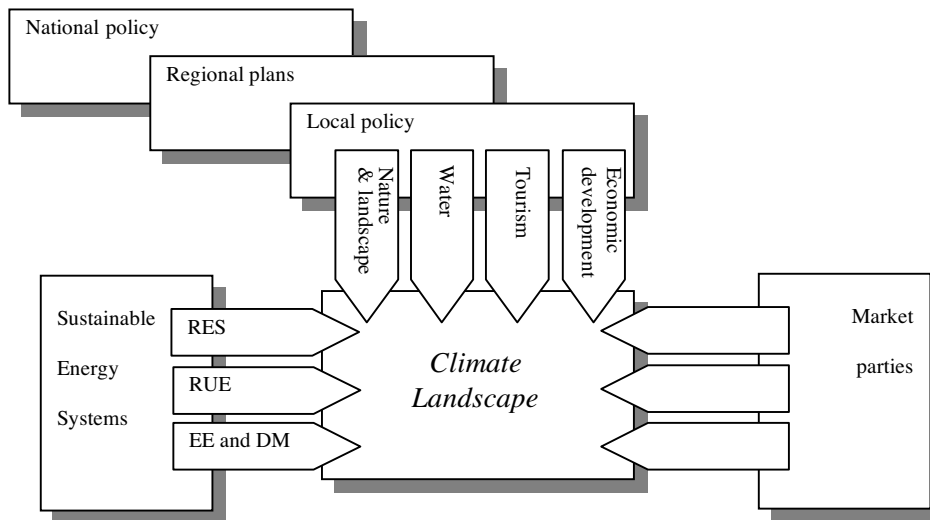
Climate Landscapes<sup>1</sup> is a mechanism for the integration of Sustainable Energy Systems (SES) in local/regional social policies (labour, economic development, etc.).

### SCIENTIFIC AND TECHNICAL OBJECTIVES

Sustainable development is, since the Brundtland report, 'our common world' characterised as a symbiosis between the needs of people, the necessity of environmental protection, and a solid economic base. The so-called triple P (people, planet, profit) has become a new brand since the 1990's. As a result, implementation of sustainable development has become a more complex assignment. Working on implementation of Sustainable Energy Systems (SES) for many years now, we have become convinced that a careful process

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1. The name Climate Landscape is owned by CEA BV. CEA is a commercial organization, ([www.cea.nl](http://www.cea.nl)). The protection of the name is not for commercial purposes. CEA wants to implement the concept on a local/regional scale in close cooperation with authorities, NGO's and so on. CEA acts as a independent organization. So, after the policy process, the process of combining actors and factors, after finding funds for realization, we 'leave the floor' and leave benefits for the local/regional parties. We protected the name, in order to save the approach from other parties who could well be interested in the benefits on the local/regional level.



**Figure 1.** Climate Landscapes makes SES visible in the community.

of implementation is a necessity for success. The ‘architecture of the process’ has become a challenge, a challenge at the same level as the state of the art techniques of SES itself.

On a local/regional scale it is important to distinguish, within the process of architecture and design, the needs for:

- building strong networks of people involved;
- work on local/regional alliances for developing, investing, exploring;
- work on integration of SES in local/regional main social policies (labour, economic development, etc.).

SES leans on the concept of the Triple P. The triple P, in Climate Landscapes should be enriched with the P for Planning. Spatial planning is the instrument where renewable energy techniques face other regional question and can be integrated. Climate Landscapes can contribute to sustainable development of rural and urban areas. Within Climate Landscapes, all people, planet, profit and (spatial) planning are the building blocks of an integrated solution.

The objective and drivers for Climate Landscapes are:

- to target sustainable upgrade (EE, energy performance enhancement, RES, RUE) options for regions by the implementation of the climate landscape;
- to integrate actions on aspects of SES, which includes EE, RUE and RES options, with economy, well-fare, labour and community;
- to utilise the most of our opportunities to interact and disseminate with partners and satellites within the European Union.

Climate Landscapes, in short, aims at the generating of opportunities for SESs in situations where some are not as obvious as they should be.

The communities, working together on Climate Landscapes, can be characterised by their variety: rural areas, nature conservation, villages and cities. The aim is to implement a variety of SESs according to the scale and possibilities the communities afford. In order to achieve this, we

consider the relation between the different landscapes in terms of producing, using, and facilitating SES.

Relations between the different forms of land use will always be related to (groups of) people in different roles like: municipality, citizen, owner, land user, investor, etc.

Climate Landscapes is a metaphor for making SES visible in communities.

### The Approach

Climate Landscapes enables the integration and intelligent management of RES, EE and RUE by combining the knowledge of techniques, the ambitions of the politicians in the areas selected and the interest of investors concerning the areas and techniques of SES.

Implementation of SES is influenced by the following factors:

- political will and possibilities;
- public awareness;
- specific regional conditions;
- available techniques;
- market parties;
- and the relations between all these factors.

We measure the objectives in terms of added values by determining:

- the number of projects, succeeded within a Climate Landscape;
- the (estimated) amount of realised RES;
- the (estimated) amount of reduced energy consumption (RUE);
- the (estimated) amount of job creation related to a Climate Landscape (locally and outside the community);
- the (estimated) amount of economic growth, related to a Climate Landscape;

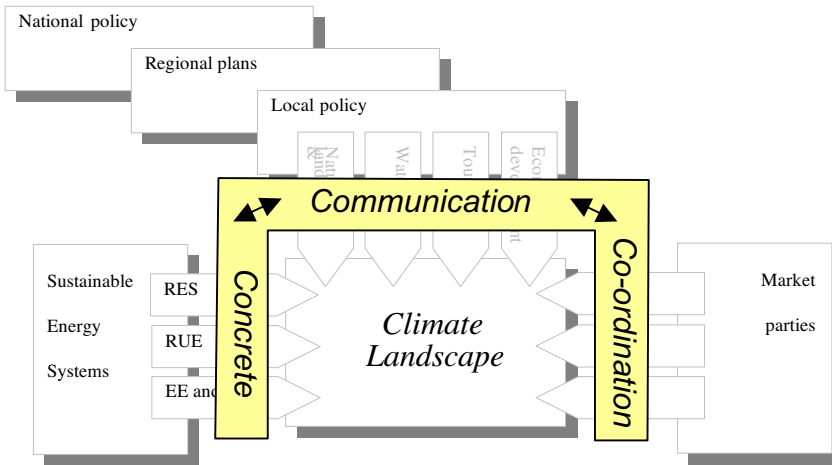


Figure 2. CO3 approach: **Co**-Ordination, **Co**ncrete actions and **Co**munication.

- the appreciation (however hard to measure) by parties concerned, especially from the citizens;
- the approved interaction and dissemination during Climate Landscapes projects and events.

Implementation is the important phase between policy making and realisation. It is a delicate process of its own, which deserves due organisation, development and professional facilitation.

Key factors in the integration process in each and between communities are:

- co-ordination of implementation processes;
- concrete actions and measurements;
- communication between all key players;

These key factors are important in relation to all participants in the process.

We call this the CO3-approach. Partners have already had experience with this process, and emphasise the fact that it is indeed a systematic and conscious process.

### Successful actions in developing the Climate Landscapes model

#### CLIMATE LANDSCAPE FOUNDATION

A Climate Landscape Foundation is set up per community with the mandate too:

- Improve and preserve the activities in the particular area, linking its agreed means of the SES (EE, RES, RUE) to an increase of economic vitality and/or spatial quality in the area by taking initiatives, participating in and/or providing financial support of activities, projects and companies that meet the objective.
- Provide a discussion platform for the public sector and the market on SES projects within the framework of Climate Landscapes including the initiator and/or producer of the projects.
- Execute profits from lucrative projects to be used for less profitable projects.

In order to develop each Foundation a stepped approach has been developed so that it can execute the intended tasks:

- Acquire funds for the execution of the tasks of the Foundation from key target parties.
- Compose a new and decisive board where the public and private domains are represented in a well-balanced way.
- Take the lead in the development of Climate Landscapes by initiating and supervising projects. Create a Climate Landscapes Foundation Fund, including participation of civilians paying due attention to communication in order to increase public support for on-going activities. The Foundation should hire consultants for this express purpose.

#### CLIMATE LANDSCAPE FOUNDATION FUNDS

The objectives of setting up the fund are to increase the public support for Climate Landscapes by letting inhabitants profit from it and to improve resources. Local entrepreneurs become involved and partly responsible for both the economic vitality and the SES of the whole area. So it is not only about new wind turbines and RUE, but also about vegetation and scenery. Owners of profitable projects give up part of the profit to make less profitable projects possible.

During the process of developing Climate Landscapes, several workshops, meetings and hearings have taken place.

The foundation established in Breda, works closely and in harmony with both local authorities and NGOs. The board of the foundation includes: 3 alderman from the three villages involved; 1 NGO (nature/landscape); 1 NGO (labour in region); 1 NGO (agriculture in region)

In order to establish a Climate Landscape Foundation Fund a stepped approach has been developed:

- Step 1: solicit interest for participation.
- Step 2: define the underlying conditions and the way such a fund should be set up and managed.  
The latter is especially a task for the Climate Landscape Foundation who must manage the following tasks:
  - Task 1: In co-operation with the bank a juridical, financial and possibly fiscally attractive model will be carried out.

- Task 2: Publication of a brochure in which the objectives and planned operation are clearly explained.
- Task 3: Undertake a marketing communication programme to test and stimulate the interest in participation. All information should be freely available on a dedicated website.
- Task 4: A participation fund will be founded by the foundation. Companies and citizens can participate in this fund.

## SES implementation successes

### ENERGY EFFICIENCY

The Climate Landscapes integrated approach promotes energy efficiency measures with a particular focus on buildings with two different approaches for new building and retrofitting measures. For new building the project foresees a legislative intervention led by Regions, Natural Parks and the Ministries with the aim of introducing compulsory urban regulation foreseeing the application of best energy efficiency measures and the introduction of solar thermal systems where relevant. At this phase technical guidelines supporting the legislative production will be developed. The Integrated Design Process (IDP) will be applied to new buildings and renovations.

### RES – REVITALISATION AND RECONSTRUCTION

Economic vitality and spatial quality are the starting points for sustainable energy systems.

With a combination of sustainable energy options and the inter-relation with social, spatial and economic meaning, a higher aim is in reach without extra costs for the government. The raising of private funding instead of relying on public money is now policy in the Netherlands for example.

Thus a new vision is created about renewable energy (and other SES ingredients) for policy makers and markets. Within Climate Landscapes' successful projects, the market has recognised the potential business opportunities e.g. Breda region, - 'Land van Heusden en Altena' and the Provinces and municipalities are realising different policy goals at once. The initiative can be transferred in only 14 months from governments to the market.

### NL Case Study – Linking Sustainability, Space and Economy

In the Netherlands, Climate Landscapes has developed as a solution to the dilemma of increasing economic needs and spatial needs for living, working and travelling which puts the current use (with a strong accent on agriculture) under pressure. There is a need to expand the meaning of agriculture. Producing 'renewable energy' is, in the Climate Landscape, a new production value for agricultural business.

Reconstruction and revitalisation need to guarantee the reinforcement of the region and countryside. Climate Landscapes have shown that wind energy and efficient biomass processes are not only RES, but also revenue, functional landscape elements and create employment. The unique decision making approach of Climate Landscapes works very effectively on this level. Twelve municipalities within the Breda region in the North Brabant area in the Nether-

lands have a mutual target to generate 5% renewable energy in 2010. The question arose how to meet this target, taking into account the natural and cultural characteristic of the area and the economic needs. Under the authority of the Breda region, the feasibility of the Climate Landscapes concept has been developed and tested.

### Feasibility

Different analysis and communication instruments are developed to test feasibility per area, e.g. business cases for renewable energy installations, for EE measures, for RUE plans, visualisations, workshops, games and newsletters. The spatial and economic possibilities are drawn up as relevant scenarios per area: e.g. a landscape where renewable energy is prominent, a landscape where economic vitality is the most important issue and a landscape where spatial quality is prevailing. Based on this scenario the entrepreneurs indicate their willingness to invest in certain SES projects.

When Climate Landscapes have a large focus on one of the SES ingredients e.g. RES it is possible that EE and RUE policy and measures are treated within an existing separate model that can be made complementary through the Climate Landscapes decision making approach. In a landscape where EE and RUE are the most economical approach to the SES, new RES may take a back seat in the Climate Landscapes approach.

## Conclusion

Through Climate Landscapes RES installations and more efficient energy management will create savings and/or new revenues for the different participants (e.g. shop owners, farmers, the tourism sector or the municipalities) and will create a sustainable approach to energy in our lives.

There are two unique and important attributes of the Climate Landscape approach:

1. The bringing together of different policy needs e.g. technology deployment, RES, job creation, economic development, quality of the environment and of stakeholder needs. Commentators (including the IEA – Renewable Technologies Division) are currently promoting the idea of developing complementary policies and measures instead of focusing on one or two in order to attain the most sustainable approach. Recently the concept received the Energy Award of the province of Noord Brabant in the Netherlands. The province also pointed out that the integration and combination of RES within the main political issues of the regions is an important new strategy for implementation.
2. The inclusion of inhabitants and stakeholders in the process of investment and decision making.

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