

# Chapter 3

## Integrating ESD in Norwegian Education

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### ABSTRACT

*This article presents and extracts lessons from experiences implementing the Norwegian national strategy for education for sustainable development (ESD) over a period of more than 15 years. After an introduction to central ideas of sustainable development and ESD, the authors discuss appropriate strategies and instruments. Key factors are collaboration to allow pupils and schools to actively contribute to positive development locally and globally, interdisciplinary approaches to complex sustainability issues, and appropriate use of the ICT and other media. ESD programmes and activities should support school development and build the capacity of schools and teachers for integration of ESD.*

### WHAT IS SUSTAINABLE DEVELOPMENT?

*Sustainable development* as a concept was introduced in the United Nations report “Our Common Future” (World Commission on Environment and Development, 1987). The report described the web of interconnections between environment and development, emphasizing that natural resources must be managed such that the carrying capacities of the systems involved are not exceeded. At the same time, resources must be distributed equitably among all those who live on the earth

today and we must ensure that our descendents can also harvest of nature’s productivity. Greater insight into complex ecological interactions is needed, as well as systems of values, economy and politics that ensure that basic needs of all people are met. To ensure a worthy life for people, both today and in the future, it is also important to develop environmentally friendly technologies that use fewer resources in the production phase and pollute less when used.

Many earlier authors wrote about sustainability issues from 1950-2000, breaking the ground for the work of the World Commission. For example,

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Rachel Carson's book "Silent Spring" (1962) is considered a foundation of the modern environmental movement. Carson was one of the first to move away from a romantic view of nature. As a scientist she demonstrated that nature is fragile and that human beings are capable of damaging ecosystems and the ecological cycles life depends on.

The Norwegian philosopher Arne Næss wrote the book "Ecology, society and lifestyle" (translation ours) (Næss, 1976). Næss' message was that everything is interconnected. He made an important distinction between the superficial and the deep ecological movements. The superficial movement subscribes to technical solutions to the environmental crisis such as population policy, changed patterns of production and consumption and technological innovation to increase energy efficiency and reduce pollution. The deep ecological movement, on the other hand, seeks more complex answers which involve almost all aspects of society.

Næss argued that a change of mentality was needed on both the personal and the political level. Rather than striving for a high material standard of living, we should strive for a high quality of life including caring for others and for the earth. Development should rest on a set of values in which our way of life respects the limitations of nature and distributes production equitably.

Susan George wrote several influential books in the 1980's and -90s about third world debt and the catastrophic consequences of the global economic system in terms of food shortage, unemployment and climate change. She was not a doomsayer, but rather emphasized the need for change in the world economic order.

Despite great efforts by many people and numerous studies, development continues today in an unsustainable direction and the debate about the real meaning of "sustainable development" also continues. Much time and energy are spent defining the message and communicating it in a way that can be understood.

A report to the Norwegian Parliament (Stortingsmelding 58 (1996-97)) described how driving forces such as population growth, consumption, technology and trade create unsustainable development due to depletion of the resource base and pollution. These impacts on the earth's ecological systems impact productivity and human welfare both directly and indirectly. When citizens become aware of these relationships and impacts, attitudes and values are formed which may allow the driving forces to be steered in a more sustainable direction. For example, people may consciously change their pattern of consumption or governments and international bodies may develop policies favouring environmentally friendly technology or more equitable trade. Awareness of interconnections between ecology, economy and society and the formation of values in society are thus key factors for sustainable development.

The climate crisis and crisis in the world economy have made apparent, in recent years, the need for changes in the world economy as well as systems of production and distribution. The challenge will be to reach agreement as to what changes are necessary, and how these changes can be brought about in complex systems.

Senge (2008) discussed the challenges of creating a sustainable society in his book "The Necessary Revolution: How individuals and organisations are working together to create a sustainable world." The first prerequisite is to create a shared vision. We must know what we want to do and have a common understanding of what sustainable development means; a consensus must be built in order to carry out the actions that are necessary.

To develop a shared vision requires professional insight and the ability to construct realistic models and understand the larger systems of organisations, supplies, production units, geography which frames our economic activities. We need to understand how these systems interact and ensure that they function well over time. Quick and easy solutions may make the situation worse. Because

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