

# Natural Disasters – More than just Nature

Researchers can make important contributions that reduce the effects of natural disasters in the future. The research field is multidisiplinary and includes issues such as wealth and poverty, the use of land, globalisation, local knowledge and the ability to cope, in addition to the natural phenomena themselves.

The course "Naturkatastrofer, orsaker, verkan och konsekvenser för samhället" was started in 2000 at the Department of Physical Geography and Quaternary Geology. The field was new at the time, research was not fully under way, and the course was viewed with scepticism in certain quarters. Now, research related to natural disasters is carried out in many of the University's departments and centres. These issues have, through the tsunami in south-east Asia and hurricane Katrina's passage over New Orleans, also attracted increasing interest throughout the world.

Anders Fridfeldt is director of studies at the Department of Physical Geography and Quaternary Geology. It was he who started the course on natural disasters.

"The word 'disaster' has meant for many people simply destruction that cannot be influenced. Now we know that the extent to which a region is hit depends to a large extent on how wealthy or poor the country struck by disaster is. The ability of society to be prepared for extreme situations is also important, as is the local knowledge of the inhabitants and their ability to cope. This is known as 'vulnerability', and it can be influenced. Doctors Without Borders, The Red Cross and The Swedish Rescue Services Agency have worked with these issues for many years, but it's only recently that the subject has become the focus of debate among the public."

#### Emergency Training is Important

"Ability to cope" describes the ability of people to cope with major and frigh-

#### For more information:

The course in natural disasters: http://www.geo.su.se/index.php?group\_ ID=635

KTH DIRECT: www.direct.kth.se

A new course at SU: Medicinsk geografi, 5 credits. http://www.geografi.su.se/content/medicinskgeografi.asp

tening changes. Following the tsunami in south-east Asia, researchers from Doctors Without Borders have examined how affected Swedes in Thailand reacted in the hours following the flood wave. They found a common fact for all those people who had become immediately involved with rescue work. These people, in contrast to the vast majority of folk, had all undergone some form of training for emergency situations. They had been scouts when they were younger, had a military training or worked in other fields where they occasionally had to deal with dangerous situations. The results were not surprising. People in countries affected by war such as Israel and Palestine, or in Africa, have shown previously that they cope with emergencies better than people in wealthy countries at peace. It is believed that a risk-consciousness plays a major role.

"Since we in the western world are seldom exposed to real threat, a large part of our risk-consciousness disappears. We do not see ourselves as possible victims, and this makes us vulnerable if we ever do get into dangerous situations such as, for example, a natural disaster. This was clear in New Orleans when hurricane Katrina passed. The authorities stood more or less paralysed under the disaster, and there were many individuals who didn't know what to do. We must realise that we are part of a global society and that we can also be affected. We must cooperate across borders, both



within research and within matters of organisation," says Anders Fridfeldt.

#### Sweden Prepares

A great deal of work is currently being done in Sweden in order to deal with future disasters more efficiently. The aim is also to help other countries in need. One example is a working group that Anders Fridfeldt has participated in, together with The Ministry for Foreign Affairs and The Swedish Rescue Services Agency. The researchers have spread their basic knowledge within geography and earth science concerning risk-filled regions and the pattern of threat in a global perspective. They have also promoted the use of geographical analysis methods such as geographical information systems and remote sensing.

"These systems can be a great help to rescue services in the disaster area, or for personnel on their way there. Providing help is faster and easier if you obtain a lot of information about the location and the conditions there. This competence is highly sought after by the rescue services and medical services."

Another initiative is KTH DIRECT, where Georgia Destouni from the Department of Physical Geography and Quaternary Geology is a member of the governing board. It is a new centre whose goal is to reduce the effects of disasters to a minimum by coordinating research results.

## **Faculty Actualities**

### Neus Visa: the 100th. Promoted Professor

It has been possible since 1999 for researchers employed as university lecturers to apply for promotion to a professorship. The number of professors at the University has increased significantly during the seven years since the reform was approved. Thus it is that the 100th. researcher to be promoted took up her new title on February 1st: Neus Visa at the Department of Molecular Biology and Functional Genomics.

Neus Visa has been promoted to professor of molecular genomics. Her research group studies the molecular processes taking place when cells use the genetic information they contain. DNA is used to produce mRNA, which in turn is used during protein synthesis. Neus Visa's group use a special model system that makes it possible to visualise a particular type of mRNA and study its synthesis, processing and transport by electron microscopy. The research aims to understand fundamental processes of life, an understanding that may help researchers to understand certain diseases.

#### Working Double Hinders Women

Neus Visa grew up in Spain and lived there until she took her doctorate. She spent some years in France, then worked as postdoc and research assistant at Karolinska Institutet, until in 1999 she was offered a lecturer's post at Stockholm University. She has been here ever since.

#### Further new professors

With effect from 1 January: Andreas Barth, Professor of Experimental Molecular Biophysics Department of Biochemistry and Biophysics With effect from 1 February:

Arne Elofsson, Professor of Bioinformatics Department of Biochemistry and Biophysics Mikael Kritikos, Adjunct Professor of Structural Chemistry, Department of Physical, Inorganic and Structural Chemistry

Håkan Andersson, Adjunct Professor of Mathematical Statistics, Department of Mathematics



Neus Visa

It was a natural step for her to apply for promotion to professor.

"There are certain steps on the research ladder, and becoming professor is one of them. I think you should apply for promotion to professor as soon as you believe that you have achieved sufficient competence as a researcher, teacher and leader of a scientific group."

Indeed, most lecturers with the opportunity do apply for professorships. But only 22 of the 100 granted have gone to women. Neus Visa believes that women have already been sorted out, a problem throughout society.

"Young women are still today expected to take a greater share of the responsibility for children and home than men. Women have their hands full just trying to make family life work, and they don't have the time required for striving after promotion. I believe that more women will be able to reach the top only when we achieve equality in this matter."

#### Making it Easier to Achieve Merit

The relatively low number of women professors has been noticed centrally, as well. The university vice-chancellor has awarded more resources to enable women lecturers to achieve merit. It is hoped that more women will in this way be able to dedicate more time to research and thus increase their chances of promotion to professor.

## Information from the Faculty Information Personnel

ylva.axberg@natkan.su.se, 3904 malin.stenberg@natkan.su.se, 3592

#### 1. Press releases

Advice and help when writing a press release, either for a disputation or when describing research results. Ring SU's press contact at 08-16 40 90 in an acute situation.

#### 2. Information material

Ylva can provide advice when producing brochures and other material following the graphical profile of the faculty.

#### 3. Introduction to the faculty

The new folder "Naturvetenskapliga fakulteten 2006", can be used for yourself, or for presenting the faculty at meetings and other events. The folder can soon be ordered from Ylva.

#### 4. Press briefings

Take charge of information and achieve greater impact in the media. Avoid misunderstanding by providing correct and accurate information to the press. Press briefings are meetings between researchers and the media that take place when new research results are published. Contact the information personnel with any ideas or announcements.

#### 5. The faculty website

Do you have any information to publish on the faculty website? The site, www.natvet.su.se, is always updated on Friday afternoons, and at other times as necessary. Contact Malin Stenberg.

#### 6. Faculty News

Is your project interesting for others? Would you like to be interviewed about your project for the internal newsletter "Faculty News"? Do you have any ideas for articles, or interesting news items? Contact the information personnel at the faculty.

Production: Ylva Hermansson. Translation: George Farrants. Paper copies: Printcenter, SU. Subscribe? Write "Subscribe" to malin.stenberg@natkan.su.se