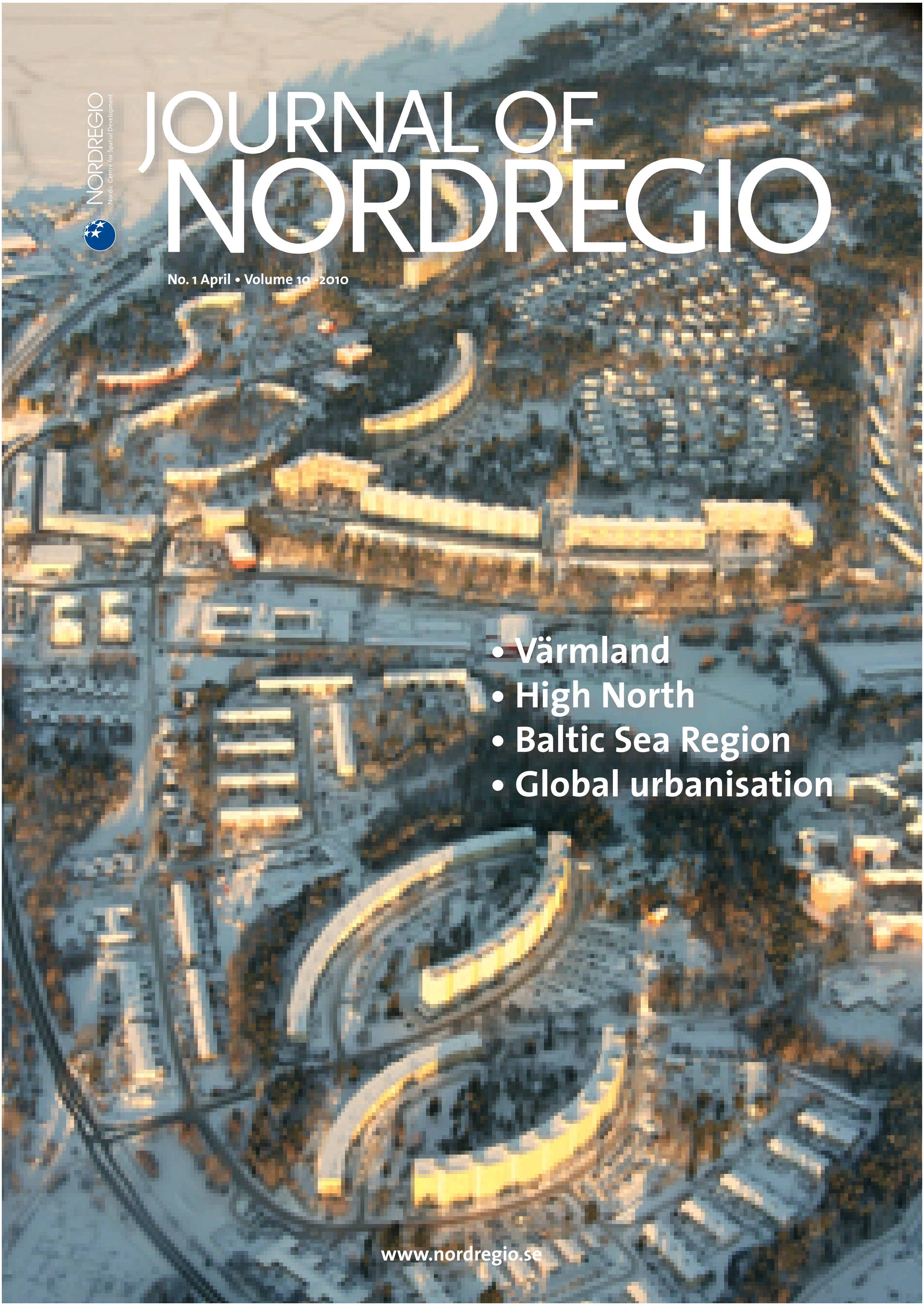

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- Värmland
- High North
- Baltic Sea Region
- Global urbanisation

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Front page: Private cars are essential for transport in this scheme of modern, mixed housing outside Stockholm. To which extent will the planning models adopted here be a useful for the future? Photo: Odd Iglebaek

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New Nordregio publications

Climate change and the north atlantic
Climate change - and the north atlantic provides a comprehensive insight into the consequences of climate change for the North Atlantic region. The book takes a special look at regional consequences with regard to the sea, the land, the people, the natural living resources, transport and geopolitics.

The rise of the networking region:
The challenges of regional collaboration in a globalised world. NORDIC RESEARCH PROGRAMME 2005 - 2008: Internationalisation of regional development policies – Needs and demands in the Nordic countries. REPORT:10

Territorial potentials in the European Union
This paper which was commissioned by the Swedish Ministry of Enterprise, Energy and Communications during the current Swedish EU presidency aims to identify and discuss some of the most important territorial potentials in the European Union. According to the EU Green Paper on Territorial Cohesion, the territorial diversity of European regions is a vital asset in economic development and competitiveness. (WP 2009:6)

Interaction between higher education institutions
and their surrounding business environment - Six Nordic case studies. This electronic working paper is a result of the project "Regional universities and university colleges, their regional impact on innovation, attractiveness and economic performance" commissioned by the Nordic Senior Officials' Committee for Regional Policy, the Nordic Council of Ministers. (EWP 2009:5)

Development perspectives
for the NSPA opportunities and challenges
This report is one of three deliveries produced as part of the foresight and visioning exercise for the Northern Sparsely Populated Areas (NSPA). The two other outputs are "Strong, Specific and Promising: Towards a Vision for the NSPA in 2020" (Nordregio WP 2009:4) and a policy road map for their future development and positioning in the European and global perspectives. Analytical report. (EWP 2009:3)

EU macro-regions and macro-regional strategies
– A scoping study
The EU macro-regions and macro-regional strategies – A scoping study discusses the understanding of the macro-regional approach now being developed within the context of EU cooperation from a territorial development perspective and particularly in relation to transnational cooperation and territorial cohesion. (EWP 2009:4)

Renewable Energy and Clean Technology
– Tools for Regional Development
This paper contains the main messages and conclusions from the Mid Sweden Conference 20 – 21 July 2009 on renewable energy, clean technologies and regional development. The conference was organised in connection with the Swedish EU presidency by the county administrative boards and county councils of Jämtland and Västernorrland in Sweden. (WP 2009:5)

Sustainability in Nordic Architecture Policies

Last December, Sweden for the first time outlined an official Architectural Policy. Four months previously Norway had done the same. Denmark did it in 2007, while Finland has had a policy in place since 1998.

The Nordic countries are often seen as torch bearers in the international engagement on climate adaptation and mitigation. How and to what extent is this reflected in these four national documents on architecture?

It is the Norwegians who seem to have advanced furthest. Their document clearly spells out that one of the main challenges today is sustainability and climate, and therefore; "Architecture should choose eco- and energy friendly solutions".

What does this imply? In fact, the Norwegians say that "Energy consumption should go down." Thus far, however, energy consumption in this context has usually been measured per square metre rather than per person. And since an increasing number of people are buying larger and even second homes, it might very well be the case that while consumption measured by area is reduced, it will increase when measured per person. The actual document does not comment on this.

Also Denmark says explicitly: "Energy consumption must come down". But as with the Norwegians it is not discussed in relation to persons. The policies outlined by the Nordic countries primarily suggest that it is the construction of buildings that provides the means to achieve such goals.

What about sustainability and climate change in Sweden? Here the policy document recommends that the national authorities should: "Work out an architectural and urban policy which puts sustainable development of our cities high on the political agenda."

In the chapter entitled Communications the Swedes note that; "The car has become the city's biggest environmental problem." They also strongly emphasise investments in new rail systems - with central connections in regional growth areas.

How do the Nordic neighbours respond to this challenge? The Norwegian policy highlights eco-friendly transport, but does not really expand upon this idea. There are no suggestions for new railways. The fact that Norway probably has the highest number of domestic flights per person in the world is not raised. Denmark and Finland do not discuss the issue of transport at all. Given that the Finnish document was produced as long ago as 1998 this is perhaps understandable The Danes however produced their policy-document only two years before the international climate change conference in Copenhagen (COP15) and in this sense it is a somewhat surprising omission.

Finally all four documents deal with aesthetic qualities, with heritage and to some extent training, both of the public and of students of the subject. The Danes also declare that "Danish architectural studies must be among the best in the world".

A major point for Denmark, Norway and Sweden is to see their national architecture become a major commercial commodity for export.

Architecture is about aesthetics and functionalism. It is about buildings and physical planning. It is also about human beings and our interaction with the environment. The questions of transport and energy, as already mentioned, are among other important themes in the public debate on architecture.

In addition *sprawl versus densification* and *public versus private* - the latter particular with regard to who control land and property – is high on the agenda. The four documents in question do not however discuss these problems.

In Denmark, Finland and Norway the architectural policies are official government papers produced by the relevant ministries. In Sweden, the document is called *Architecture and Politics*. The authors are the Swedish Association of Architects, a private organisation. Nevertheless, the Swedish paper retains a strong emphasis on the giving of advice to the Government and to the *Riksdag*.

The title of the Danish policy paper is *A Nation of Architecture - Denmark – Settings for Life and Growth.* In Finland it is just called *The Finnish Architectural Policy*, while the Norwegians say *architecture.now – Norwegian Architectural Policy.*

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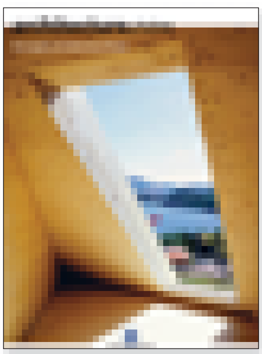
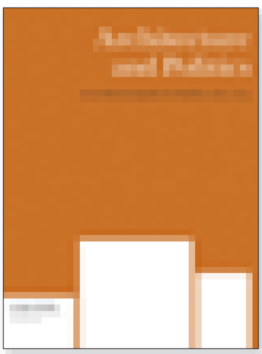
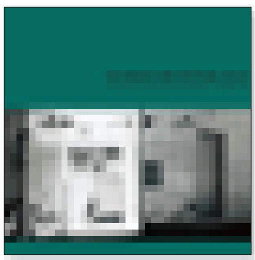
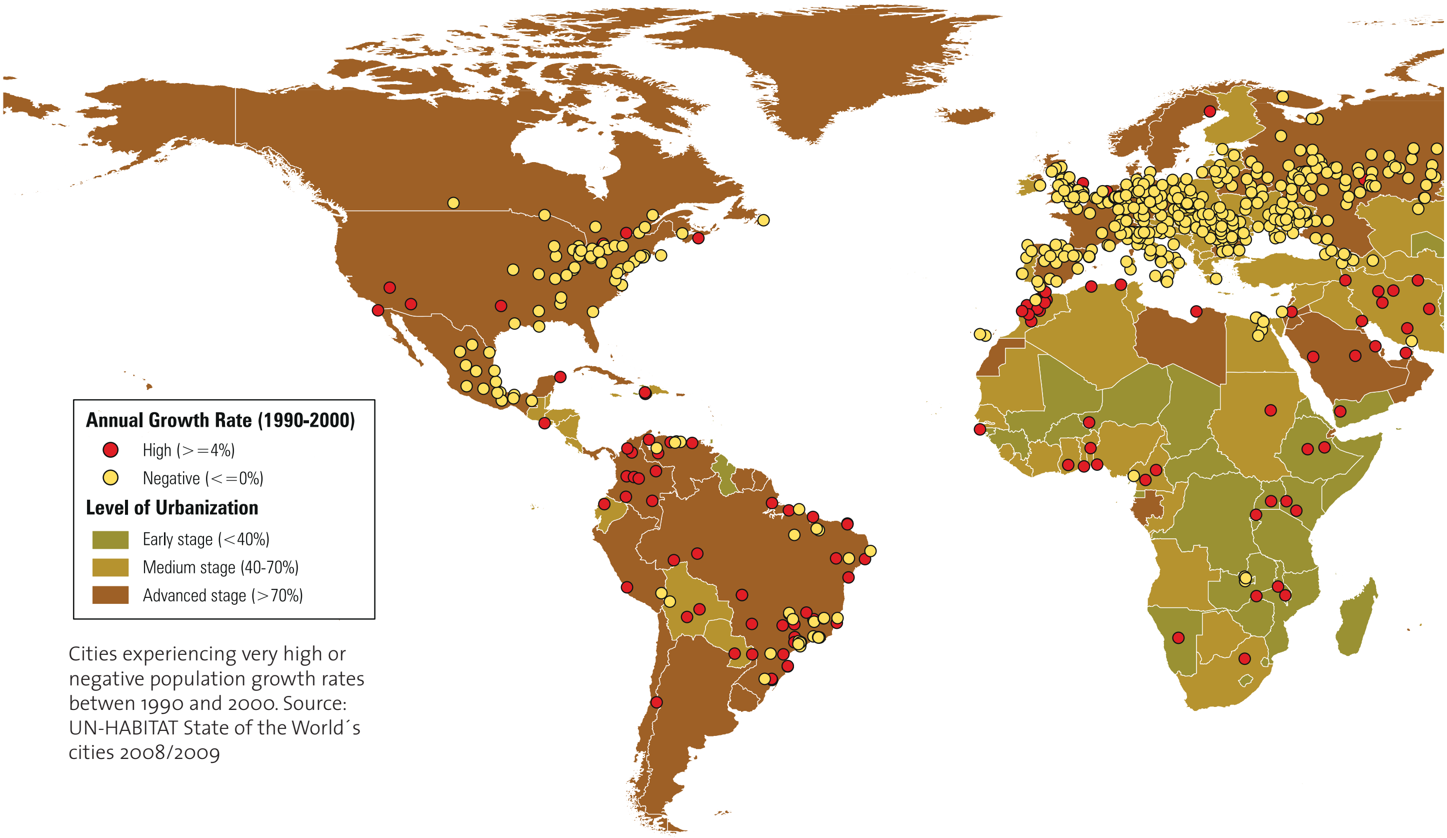








Cities experiencing very high or negative population growth rates betwen 1990 and 2000. Source: UN-HABITAT State of the World´s cities 2008/2009

Global urban growth and decline

In the future more people will live in cities and more people will live in big cities. Some of the world's cities are growing very rapidly while others are continuingly declining in terms of population. At the same time many are spreading out in terms of land-use. Except for China however few new cities are planned.

Urban sprawl, the concept of the single family house on an individual plot of land serviced by private car transport combined with accessible shopping centres remains high on the agenda. The implication is that the cities grow in terms of area. This is as typical of Dar es Salaam or Nairobi as it is of Paris, Lyon, Helsinki or Oslo. In fact many of the new cities being planned in China are being specifically designed and developed with these very models in mind.

The global urban population is currently growing by nearly 60 million people every year, indeed, every second person now lives in a city with the global population now above six billion. Only four of the world's largest 25 cities, however, are situated in the rich countries.

A century ago only two out of ten people lived in urban areas. In the least developed countries figures were as low as 5%. The total population of the world was then around two billion people.

In the coming years virtually the whole of the world's demographic growth, some 90-95% of it, will be concentrated in urban areas primarily in the cities of the 'south'.

By 2050, according to the latest UN-Habitat scenario, the world will have a total of almost nine billion inhabitants almost 70% of whom will be urban dwellers. Perhaps as much as a third of these people will live in slums or so-called 'informal settlements'.

High growth is expected for half the urban areas in the developing world during the coming twenty years. However, 11% will see regress and 16% only slow growth.

Many cities in the south like Nairobi, Dar-as-Salaam Marrakech, Lagos, Tijuana, Phnom Penh and pre-earthquake Port-au-Prince see growth at around 4% annually. That means that their population will double in 17 years.

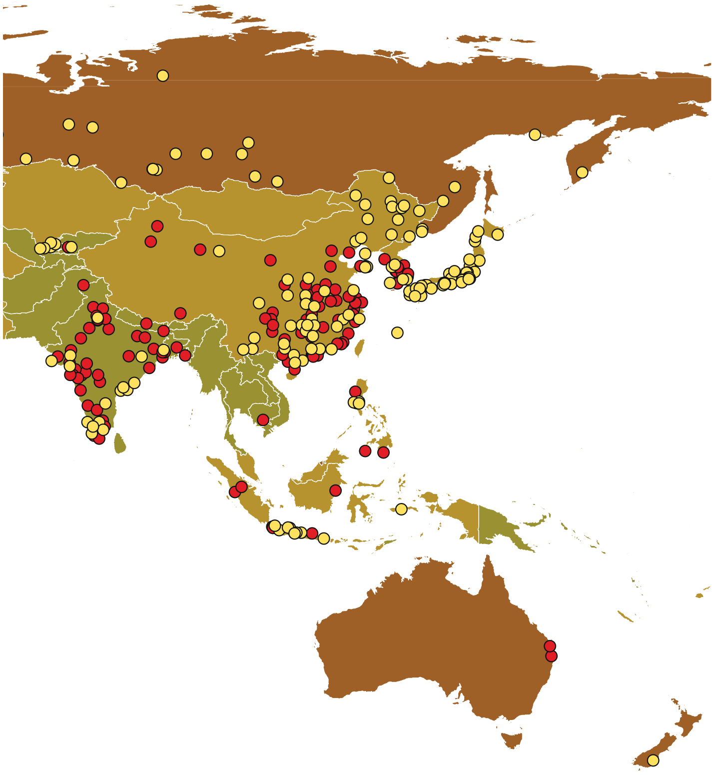
However some cities, like Kigali in Rwanda and Shenzhen and Xiamen in China may double in only eight to ten years. China is also planning to build 100 cities with a population of one million each within the coming years.

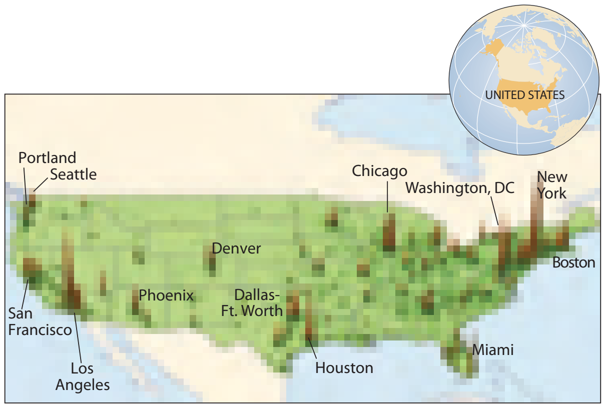
A key feature of this future will be the melding together of mega-cities and their coalescence into mega-regions reaching population concentrations of more than 100 million people - called the `never-ending´ city. Hong Kong together with Shenzhen and Guangzhou may soon become the largest city-conglomeration on the planet with 120 million inhabitants.

Cities in Europe and North-America will, at best, remain static in population terms. Indeed, in Europe more than half will continue to decline.

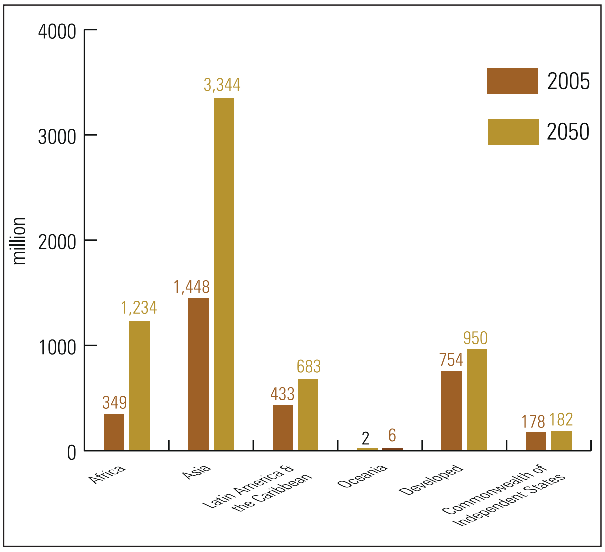
Some cities in Africa, Asia and Latin-America, such as Rabat, La Paz, Belo Horizonte, San Luis Potosi, Dengzhou, Madurai, Bandung and Manila are also likely to see a population contraction.

In 2005 the developed world had an urban population of 900 million. By 2030 it is likely to have reached one billion and by 2050 1.1 billion. Two thirds of this growth will be caused by migration both 'legal' and 'illegal'.





Graphical presentation of economic production per square kilometre in the United States highligting the role of the cities.
Source: WDR 2009 team and World Bank Development Research Group based on subnational GDP estimates for 2005.



Urban population (millions) by region, 2005 and 2050
Source: UN-HABITAT State of the World´s cities 2008/2009

Nevertheless, it is highly likely that the population of at least 46 countries will continue its downward spiral. Germany, Italy, Japan, most of the former Soviet Union and several small island states will follow this trend.

The pace of global urbanisation is generally not accelerating. The decade with the highest relative expansion was the 1950s with an annual growth of over 3%. For 2025-2030 overall urban growth is likely to be 1.5% per year.

Moreover, overall population growth is declining. Developing countries which had an annual growth of 4.2% on average in the early 1960s are expected to fall to 1.25% by 2050.

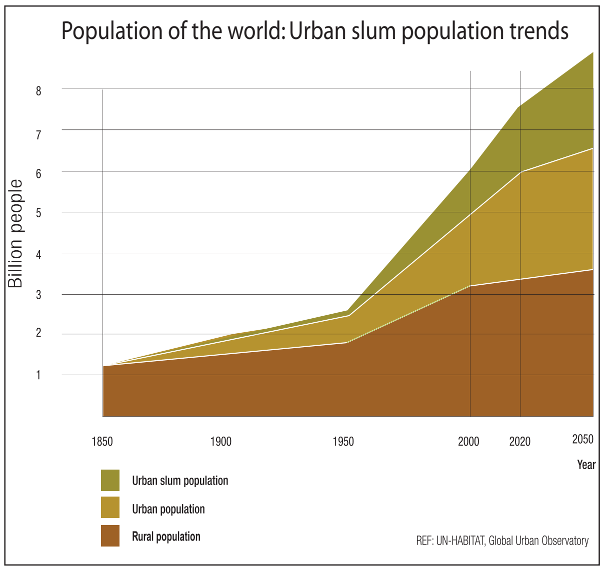
In Europe during the period 1996-2001, one third of all cities saw notable declines, one third were stable and one third grew a little, perhaps by +0.2% annually.

Currently some 70% of the EU-27 population live in urban areas, however, only 7% live in a metropolis of more than five million inhabitants. The equivalent figure for the US is 25%.

In cities like London, Paris, Berlin, Madrid and Rome between 80% and 90% work in the service sector. Europe has almost 1000 cities with more than 50 000 inhabitants, 6000 towns or cities have more than 5000 people.

By Odd Iglebaek

Sources: 1. Keynote address by Mrs. Anna Tibaijuka, Executive Director of UN-Habitat, 8 February 2010. 2. UN-Habitat: State of the Worlds cities 2008/2009 3. European Union–Regional Policy: Promoting Sustainable Urban Development in Europe. 4. Various current newspaper articles



Total global population develoment trends.
Source: UN-HABITAT State of the World´s cities 2008/2009

The economic attractiveness of slums

Dar es Salaam/Nairobi: Almost everywhere across the globe in growing cities the central districts are the most attractive to speculators in building and property. Usually, it is easy to make money here and often quite a lot of money in a short period of time. In particular, this is the case if you can build a lot more on a plot which was not previously developed to a significant level. This is also the reason why so-called slum areas are often high on the agenda of property developers, whether public or private.

There are three ways to secure "good margins" in this kind of business: You rent existing structures charging high levies. Alternatively, you demolish and build a lot more than was there previously, or thirdly you add to what is already there. Of course, combinations of the three approaches are also possible.

Which strategy is adopted depends on who owns the plot, the legal system in place and the political power of developers and their accomplices

Exploding Kariakoo

Kariakoo is in the heart of Dar es Salaam. Some 30-40 years ago this was predominantly a residential area dominated by one-storey *Swahili-houses*.

Today, however, only a handful of these structures remain. New glass-steel-and-concrete buildings, reaching 8-10 storeys or more high at the main thoroughfares have completely taken over.

Kariakoo is in the process of becoming one of the largest market-arenas in Africa. The total area is only approximately 1.5 km^2 and it is a very busy place with a lot people, congested traffic, shops, offices, small industrial units and flats. Already in 2002 it had a daytime occupancy of more than 200 000 people while the night-time population was only 50 000. Today these figures have probably doubled.

What is behind the changes in Kariakko? The local architect Ezekiel Z. M. Moshi has studied the developments and he argues: - We are not witnessing a process driven by professional planning or design concepts. Rather it is driven by the economic interests of the owners of the plots in the area. (For more details see: PhD thesis 39, The Oslo School of Architecture and Design)

The plots in the area (generally 12 x 24 m) usually sell for between 100 million and 500 million Tanzanian Shillings (100 000 to 500 000 USD). That means maximum prices are close to 2000 USD per m^2. By way of comparison some of the most attractive sea-front plots in downtown Oslo were recently sold for 4500 USD/m^2.

Public land?

All land in Tanzania is in theory publicly/state owned. However, it is not only in very central areas like Kariakoo that plots are bought and sold through systems which may only be minimally influenced by official legislation.

Another example is that of Burguni Mnyamani, which was established in the early 1970s and is the oldest slum in Dar es Salaam. The district is some five kilometres from the centre. It is a 'rough and ready' place with open sewers and limited water-supplies. Schools are few and health services almost non-existent. Drugs are easily available but jobs are much scarcer.

The population is however rapidly increasing, from some 18 000 in 2005 to 21 000 in 2010. Much of this growth is caused by new immigration to the area.

Thus a process of densification has clearly begun, although it will probably not be as rapid, massive or profitable as that in Kariakoo.

In Burguni Mnyamani most houses are one storey high. Most plots are 500-600 m^2, but are increasingly divided in two. The occupier of the plot usually has their house on the plot and lives in it.

By 'splitting' the owner can gain up to the equivalent of 4000 USD per part. If you sell both and leave, the money can be enough to fund a new start with better sewage, water and social facilities.

You would have to move further away from the city centre, probably at least 10-15 km. This however usually entails much longer journeys to work, and with all the traffic in the city, this could easily mean two hours more travelling each day.

Kiberia is still flat

Kiberia is the famous 2.5 m^2 slum-city in the centre of the Kenyan capital. It is one of the most densely populated areas in the world. Between 600 000 and 1.2 million people live here, depending on season, jobs etc.

Kiberia is still all one-storey sheds of wood and rusting corrugated sheets, usually some 10 m^2. Like a carpet the shanty structures are spreading up and down the hills in the area, while the surrounding areas are either traditional 'suburbia', industrial development areas or downtown, with a growing number of high-rise office-blocks.

Open spaces are hardly anywhere to be found in Kiberia. More than anything the reason for this is that the more houses there are the more profit there is to be made. The demand for these relatively low-cost housing units seems, so far at least, to be almost limitless.

Almost all houses are for rent. In Nairobi land is usually privately owned and very few of the Kiberia-owners themselves live in the settlement. Rather you find them in the posh villas in the green suburbs. Many of them are politicians or businessmen.

All profits after 20 months

According to UN-Habitat the rents paid here are so high that it only takes 18-20 months for the owners to recoup their initial investments. After that the plot functions more as an income-generating machine with hardly any expenses or taxes.

Average rent in the area is between 1500 and 3000 Kenyan Shillings (250 – 500 USD) per month. There are stories of people owning up to 300 houses, in other words, each month it is possible for such people to put the equivalent of 150 000 USD straight into their pockets.

Protesting upgrading

Last autumn the authorities in Kenya launched a programme to renovate Kiberia. Although it might take many years to fulfil, some say almost 1200 years, it has been met with substantial resistance from the proprietors or *the structural owners,* as they are called locally.

No less than 80 of them have so far protested against the upgrading-programme, claiming that the authorities do not have the right to demolish existing structures. Many of them have also announced that they are prepared to take legal action including going to the High Court (http://en.wikipedia.org)

Mumbai's expensive slum

The examples above from East-Africa are in many ways typical also of many other places in the world. Take Mumbai, here the centrally situated Dharavi is often called "the most expensive slum in the world".

The reason for this is first and foremost the high prices generated through the sale of plots in the area, again it is excellently located for property-speculators. Prices are comparable to Manhattan and ordinary flats in the new blocks rising up among from among the sheds can easily cost 90 000 USD.

- There are examples of speculators in places like Mumbai, Nairobi or Caracas, making profits of 1000%, comments Assistant Professor Bo Vagnby of the University of Ålborg (*Klassekampen* 02/03/10) one of the increasing number of researchers studying international urbanisation. He compares the developments here to what happened in parts of Copenhagen during the 1920s and 1930s.

Cheap labour resource

- Another economically attractive thing about these settlements are that they are actually very useful for the city's economy, because this is where the city's cheap labour and most its entrepreneurs live and often work, underlines David Satterthwaite, Senior Fellow at the International Institute of Environment and Development.

- Increasingly, moreover, close links are being forged to the *formal* economy actors situated in the glass towers of these cities. As such, without these shanty-towns or slums, these cities could not survive and expand, he adds

By Odd Iglebæk

Above: From Kariakoo, Dar es Salaam. Below: Slums of Nairobi. In both cases the economic potentials of the actual properties are decisive for the city-scapes. Photo: Odd Iglebaek

- Warning against divided cities

- In many ways cities are the engines of human development. In all countries they generate wealth, jobs and opportunities though smaller towns also participate significantly in this process. However, there are many uncertainties over the degree to which cities of the future will, in this context, function.

- Going back to the Romans or the Greeks we have seen cities rise and fall. Therefore we must also think ahead and ask: What will cities look like one hundred years from today? This was the way in which Ms Anna Tibaijuka, Executive Director of UN-Habitat, speaking at the Conference introduced "The Future of Cities" at Chatham House in London this February.

- In the future, regional and urban development will be more linked, in such a way that successful cities will be located in successful regions. Some of these cities will turn into powerful drivers of regional and national development, continued the UN-Director of Habitat who went on to underline the following:
- Uncertainties however remain, such as the volatility of global markets, potential new financial crisis, challenges to national political cohesion, regional disparities but perhaps most importantly the potential for social and ethnic conflicts and even the advent of regional or national insurgencies.

Ms Tibaijuka warned against the trend that many cities today: "create wealth along with extreme inequality" together with various forms of exclusion and marginalisation which can often have serious environmental effects.

- The evidence shows that some of these new urban configurations – cities in clusters, corridors and regions – can result in severe urban primacy and unbalanced regional development, as they strengthen ties to existing economic centres rather than allowing for more diffused spatial development, she explained, adding: - In this process, it is also likely that these new configurations generate poverty and exclusion for some regions and groups that are left out of this development process.

The Habitat-chief continued pinpointing that never before in history have so many people been lifted out of extreme poverty in such a short period: - Over 500 million people, equivalent to the total population of Europe, have begun the process of escaping this scourge in the last thirty years, especially in rural areas.

- However, is it not rather odd and somewhat contradictory that while global poverty has been reduced poverty in urban centres has increased and continues to grow year after year?

From 1993 until the present the world's population has probably increased by one billion people. However, the number of people living in extreme poverty (below the so-called poverty line at 1.25 USD) has risen by 'only' 100 million, from 700 million to 800 million according to the World Bank. The majority live in rural areas.

- For people living in slum conditions the situation is rather bleak. They lack jobs, income, adequate housing, access to proper water and sanitation as well as being faced with the constant risk of being evicted because of their lack of secure tenure rights. I think this is a recipe for disaster and conflict, underlined the UN-Habitat chief.

The organisation estimates that one billion people, or one-third of the world's urban population, currently lives in such conditions:
- If cities and nations go on treating these areas as "zones of silence" in terms of knowledge, opinion and discussion, it is very likely that the numbers of urban dwellers living in *favelas*, shanty-towns, *bidonvilles, kampungs, mudon safi* and other slum-like conditions will continue to expand, reaching 1.6 billion by 2020, noted the UN-specialist on human settlement and habitation.

- Therefore the real challenge of urbanism is to change this in a more positive direction. Governance at both national and city level will of course be important, but I will also underline the importance of cooperation – both within but also between cities, concluded Ms Tibaijuka,

David Satterthwaite is the editor of Environment & Urbanization a journal for international research on settlement issues: – I will underline that too often slums are regarded as negative just by definition, but when half of the population of Mumbai, Delhi and Nairobi live in 'informal' settlements this is not for reasons of poverty alone but in addition reflects also the legacy of decades of political choice – this, at least in India, might be changing.

These settlements are also very useful for the city's economy because they provide housing that low-income groups can afford. It is where the cheap labour force and most of its entrepreneurs live – and often work – and where you find a whole range of services used by formal companies and corporations throughout the city.

Mr. Satterthwaite adds that there is no inherent link between rapid city growth and city problems: - Many of the world's fastest growing cities have actually been in the USA. In addition, some of the fastest growing cities in Latin America are also among the best governed with the best health statistics – for instance Porto Alegre and Curitiba in Brazil.

By Odd Iglebaek

Ms Anna Tibaijuka, Executive Director of UN-Habitat.
Photo: Odd Iglebaek.

Immigrant Women's Entrepreneurship

Making Space for Good Services – Immigrant Women's Entrepreneurship in the Care Sector in Sweden

– Do they become self-employed in order to get a job and escape unemployment? This question was often posed to us when we described the research project upon which this article was based.

The prevalent image here is one of immigrant women becoming entrepreneurs out of necessity and in order to create a job, and perhaps an income, rather than being motivated by the wish to realise an idea and work independently, motives often stated to be found among entrepreneurs in general.

This article builds on 20 in-depth interviews with immigrant women entrepreneurs, from different countries, living in the Stockholm region. We have chosen to study the care sector due to it being the largest labour market for both foreign-born and Swedish-born women in Sweden. A growing number of municipalities and county councils are at the same time, through political decisions, making it possible to start private businesses in this sector. The question is why have these women become entrepreneurs?

Our analysis reveals that out of 20 women only two started their own firms because they had difficulty gaining alternative employment. Consequently it seems other factors motivate them. The vast majority of the women interviewed had worked in the care sector, in both municipal and private organisations, before becoming entrepreneurs. Our analysis indicates that the care sector is undervalued in society as many of the jobs there are low-paid, low-status, female-dominated and hold few opportunities for development.

Many of the women have reacted against this subordination through their choice for entrepreneurship and want to offer better care services. Negative experiences suffered as employees, the experiences indeed that motivated them to become entrepreneurs, include continual economic and time pressure. They exemplify this to the customers as having had to 'run in and out'. A woman puts it like this:

"So I decided to start my own company. I had already become rather dissatisfied with my work in XX municipality in the municipal home help care sector. Because you run all the time there is no quality. We have constantly to 'step on the gas' and try to use the time as best we can. And I didn't think that was my thing. I thought that the old people seemed very lonely and needed something else, they needed some company".

Such negative experiences are turned into a motivation to work in another way in her new home help service firm. Another motivation for the choice for entrepreneurship among these women is to offer care services in other languages than Swedish, since many discovered that this is simply not provided by other care service providers. The women thus reinterpret the very meaning of care and as a result create a new and innovative service product.

In addition, many of the women seek to improve the situation of their employees – themselves often immigrant women – for the better. For one of the women interviewed this implies a clear ambition to create ethnic equity and gender equality. She says:

"It is great to see how the personnel we hired in 2001 have grown as persons. I have had some Somali [women], who have never had cash point cards before. Who have never had money in their own bank account: Have never been to a party for the personnel. And now I see how they grow, and it gives me great joy. Next year I will put my efforts into helping young people".

In conclusion we see that the women interviewed create space for a better care product at the margins of the subordinated care sector where working conditions are often difficult.

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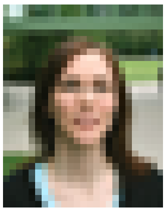

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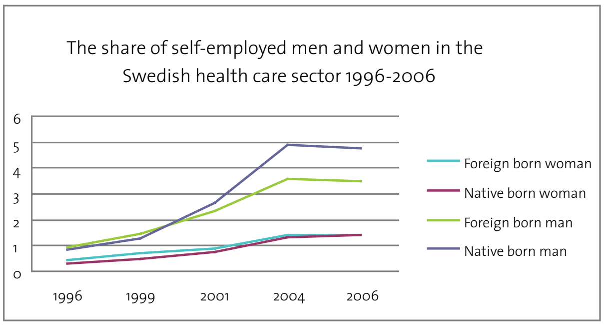

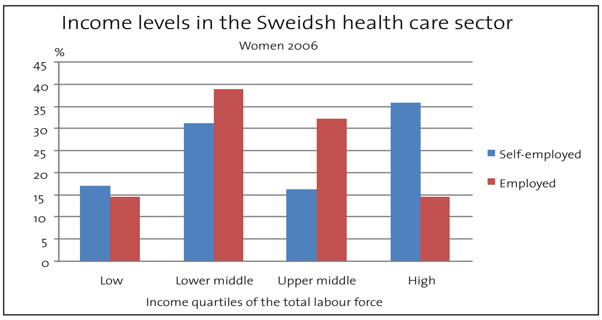

Who pays for rainy days?

What can 250 000 SEK, a 40-kilometre water tunnel, an insurance company, politicians and a university have in common? The answer: climate change. A seminar held recently in Vänersborg, Sweden, presented an unusual and educational example of how adaptation to climate change can be addressed in a constructive and imaginative fashion, striving for a balance between societal, technical and scientific imperatives. Held in a region of western Sweden that has long dealt with a demanding climate, but also been active in the task of mitigation of climate change, the seminar reflects a challenge being felt at the local level across the Nordic region.

Throughout the Nordic region, after more than a decade of working with mitigation (or, the reduction of the causes) of climate change, it is becoming more common to hear calls for adaptation to the effects of climate change. Achieving such a shift in political focus is itself noteworthy, and has not come easily, but implementing the resultant policy decisions in terms of concrete response measures remains a challenge. Big questions emerge, and one of the biggest of them all is: Who pays? More specifically: Who pays for the research needed to assess the risks? Who pays for the changes in infrastructure that are required as a result of such analyses? Who pays for the damage where preventative measures prove to be inadequate?

Intrinsic to the question of who pays for adaptation to climate change is the question: Who has the responsibility? Taking responsibility usually means, in political terms, paying the bill. Conversely, those who pay usually bear the responsibility for the adequacy and outcomes of whatever actions are taken. The issue with regard to climate change is that it has created a vast and empty political space, where neither the economics nor the questions of responsibility have been resolved to any satisfaction, let alone operational clarity. If you are, for example, a municipal housing director, a planner, or a regional emergency response coordinator, there are many aspects of such a situation that are challenging, even frustrating. At the same time as the assessments of vulnerability are gradually becoming more detailed, with the need for appropriate response ever more apparent, it is also becoming increasingly clear that society has a long way to go in resolving these issues. The vacuum of experience and initiative in reaching closure generates increased uncertainty, which itself in turn becomes a problem. An uncertain state of affairs is not a positive input to ambitions in the area of regional development.

Now, to return to the Vänersborg seminar, which represented a promising initiative in these matters. Organised through a collaboration between the Center for Climate and Safety, Karlstad University; *Länsförsäkringar*, an insurance company; Länsstyrelsen Värmland, and Länsstyrelsen Västra Götaland, the seminar's main question was, "What measures are needed and who has the responsibility?" Approximately 150 participants from a broad spectrum of actors (including Nordregio), deliberated this question throughout the one-day event, held on 20 January, 2010.

What united this diverse meeting of representatives of national agencies, county boards, companies, politicians, municipal planners, scientists, civil preparedness experts and media was a common concern with the geographic feature most likely to require adaptation as climate change proceeds, the entire water system incorporating Lake Vänern, its tributaries and drainages. As Sweden's largest, and Europe's third largest, lake, it has an obvious representative value. Many of the municipalities around its shores have to contend with rising lake levels and subsequent flooding, often at great cost to society. The anticipation of increased precipitation dominates its most clearly defined climate change scenarios, and provides a common reference point for the inhabitants of the area. Building a drainage tunnel, or perhaps a canal, to the sea has long been proposed as a possible alternative, among others. Deciding and financing these ideas are, however, far from straightforward.


Göteborg hotas av översvämning

The regional press reflects the debate on costs and climate change. Facimile from Göteborg-Posten

Who has the responsibility and who pays for adaptation to those scenarios and their eventual playing out? Or should it be stated the other way around: Who pays and who has the responsibility? The very fact that such a broadly representative stakeholder group gathered to share information, the latest scientific results, political intelligence and wise counsel is already progressive, but, as the consensus showed, mere talk is not, and will not, be enough, if even the mildest climate change scenarios for the region are realised. So, to bring the 250 000 SEK mentioned at the beginning back into the picture, the insurance company, *Länsförsäkringar*, pledged that amount at the seminar, to be used towards the funding of a feasibility study of how best to relieve the drainage pressure from Lake Vänern. The challenge to the other main actors present was clear: let's share in the costs and the responsibility. At the time of writing, Länsstyrelsen Värmland has matched the sum. It is perhaps not too much to predict that the communities around Vänern are becoming a showcase of how to initiate climate change adaptation.

(With thanks to Emilie Hindersson, Coordinator, Center for Climate and Safety, Karlstad University, for additional background information for this article.)

By Richard Langlais,
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Trends in Nordic municipal amalgamations

Municipal amalgamation: are efficiency gains immediate or long-term? Municipal structures have undergone major overhauls in several Nordic countries over the last decade. Structural reforms have taken place in Denmark and Greenland while a more modest process of gradual reduction in the total number of municipalities is currently taking place in Iceland, Finland and the Faroe Islands. In Norway, Sweden and Åland however the municipal structure remains more or less fixed:

	As of Dec. 31 2000		As of Jan. 1 2010	
	No. of municipalities	Mean population	No. of municipalities	Mean population
Denmark	275	19 500	98	56 500
Finland	436	12 000	342	15 650
Iceland	124	2 300	77	4 100
Norway	435	10 000	430	11 300
Sweden	289	31 000	290	32 200
Faroe Islands	49	900	30	1 600
Greenland	18	3 100	4	14 050
Åland	16	1 600	16	1 750

Nordic municipal structures 2000 - 2010

The arguments used for and against reform of the municipal structure can be grouped into those concerned with efficiency and coordination on the one hand and those singling out various aspects of the democratic process on the other. Helpfully, a number of recent evaluations of municipal merger outcomes in Denmark and Norway provide us with significant new insights into these issues.

Efficiency and coordination

In all Nordic countries, a central argument in promoting municipal mergers is that public welfare services are more efficiently produced in larger municipalities. The nature of the municipal merger process may itself however play a key role. Indeed, significant differences can be seen to exist between the comprehensive and systemic approach used in the Danish 2007 structural reform process and the piecemeal approach to the municipal structure adopted by countries such as Sweden and Norway.

Moreover, recent econometric analyses of the 1952 reform of the municipal structure in Sweden suggest that the municipalities that were to be amalgamated increased their debt in anticipation of forthcoming mergers more than non-merging municipalities did (Hanes 2003; Jordahl and Liang, 2010).

In Denmark similar concern has been raised as to whether the 2007 structural reform has had similar effects on the financial behaviour of the merging municipalities. Welling Hansen (2009) analysed econometrically whether Danish municipalities behaved in a financially opportunistic fashion in the period leading up to 2007.

This primarily concerns the incentive to hoard resources in the soon-to-be merged municipalities in order to increase expenditures or consume public assets in the period prior to the reform. The Danish structural reform process seems however to have had only a modest effect in this regard.

Alternatively, incentives may have existed in the new and enlarged municipalities to increase expenditures in order to harmonise municipal service levels after the implementation of the mergers. Whether the new municipal structure affected the expenditure levels of the new Danish municipalities in the first year after the reform was also assessed by Welling Hansen. Here, evidence of expenditure increases was most clearly manifest in the area of schools and education. Overall, the effects were limited, leading Welling Hansen to conclude that the Danish state, at least in the immediate term, has succeeded in keeping the new municipalities under financial control.

Case studies from four recent municipal mergers in Norway found that the amalgamated municipalities improved their level of quality in the provision of public services. By pooling administrative and management staff, the municipalities have taken advantage of economies of scale while additional resources have been provided to improve public service provision (Brandtzæg 2009).

When such amalgamations brought together a smaller municipality with a much larger one, and where each had very different quality levels from the outset, the new common service levels were not necessarily an improvement for all inhabitants. User surveys confirm this, with the most high profile concerns in terms of quality improvements, or the lack thereof, related to the production of social services, care for the elderly, childcare and education.

It remains however a little premature to attempt to assess these gains fully. Previous research has found that the gains made in respect of pooling administrative and management staff usually emerge only 3-4 years after full amalgamation has taken place (Deloitte, 2008). Nevertheless, by 2009 46% of the new Danish municipalities reported that their ability to recruit qualified professionals had improved. In terms of post-structural reform capacity building, the municipalities reported that most immediate improvements have been delimited to the sectors of physical planning, public health and social services (Indenrigs- og socialministeriet 2009).

The issue of democracy

Research on the effects of the Danish 2007 Structural Reform on local political decision-making is also starting to emerge. Kjær *et al*. (2009) assessed whether political influence has moved inwards (from backbenchers to the political elite), outwards (from local councils to the administration) and upwards (towards the Danish central government) after the reform.

Comparing the perceptions local councillors had on these issues in 2003 and 2009, Kjær *et al*. found evidence of political decision-making influence having moved both inwards (toward the local political elite) and outwards (towards the administration) in the larger, amalgamated municipalities.

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Timber, water and ore have formed the traditional basis for economic activity in Värmland. Photo shows the region´s famous Klaraälven.
Photo: Per Eriksson

Regional innovation in Värmland

At the industry peak there were no less than 52 paper-mills in Värmland. Today only seven remain. Värmland has thus had an industrial cluster in pulp and paper for over a hundred years. Due to this long tradition Värmland is today a global centre for the manufacture of pulp and paper machines and has an Information Communication Technology (ICT) sector with a specialisation in control systems for the forestry industry.

The big industries and paper mills benefited the local economy in that they had many employees. There was however one significant drawback to this industrial structure, simply put, it did not foster entrepreneurship. Jobs were taken for granted. When the industries were forced to shut down or rationalise this led to a significant rise in unemployment.

Stimulating the innovations that lead to new jobs and businesses is now one of the greatest challenges for Region Värmland. This is done through several cluster organisations and via extensive collaboration with Karlstad University. Over the next five years Region Värmland will invest around 50 million SEK to expand this University cooperation while additional external funding will attract a similar amount.

Cluster initiatives

The innovation system in Värmland is formed around several regional cluster initiatives and innovation platforms. The cluster initiatives as they are today began to take shape in the late 1990s. The Paper Province (pulp, paper and machinery) and Compare (IT and service sector) were early initiatives.

The cluster initiatives are based on co-operation between companies, society and institutes of higher education and have been set up around already strong sectors such as pulp and paper, the packaging industry, steel and manufacturing, the information and communications sector and the food industry. They are strongly company-driven – most were initiated by industry – and are based on the companies' need for mutual expansion efforts. The initiatives serve as a platform in which companies meet and co-operate across borders with public players and with the academic world. Co-operation between private sector companies and Karlstad University has strengthened the companies and increased the commercialisation of the research results.

A focal point here is the need to create places and *fora* where people can meet. This helps to develop trust between the various actors, which is a critical issue when forming an effective innovation system. When people trust each other they tend to do business together and new ideas tend to spring to life when people with different backgrounds meet.

Innovation platforms

Particularly important for the clusters is the creation of innovation platforms. They are set up around new business challenges demanding interaction between different branches of industry and different competences. The task is to find new constellations of people, industries, companies and researchers that can come up with innovative solutions to meet the new challenges.

Some of these platforms have developed research infrastructures, test labs etc., to correspond to a need that lies between university labs and R&D-facilities at a single company.

One such example is the Compare Test lab which is an independent ICT test facility where both university researchers and companies can test new applications and ICT-systems.

Another is Packaging Media lab where consumer reactions to new packaging solutions can be tracked. Actors such as researchers in consumer behaviour, cardboard and packaging producers, food producers and designers use the facility.

The paper mills have resulted in Värmland being a world leader in the construction and manufacturing of paper machines. Most new paper machines in the world have parts made in Värmland. Photo from Stora Enso Skoghall. Machine by Metso Paper. Photo Jan-Olof Hesselstedt,

The research infrastructures have proven to be an important mechanism not only in the development of new knowledge and solutions but also in functioning as natural meeting points for people from different sectors. In this way these facilities contribute to the creation of trust enhancing knowledge transfer between the actors while also acting as an inspiration for new ideas.

Region Värmland has now been at the forefront in the development of this system, together with the County Administrative Board and the municipalities, for ten years. A strong sense of political leadership and a clear strategy have been important here in gaining the support of key actors such as business leaders and those in the university sector.

Work has also focused on attracting additional financial support. The process of developing the programme with European funding helped the region financially to oversee a structural change from an old industrial to a knowledge-based environment. The use of innovation platforms as a tool for economic structural development has played an important role here. The ERDF-programme (European Regional Development Fund) in North Mid Sweden strongly supports the development of the innovation platforms in the three counties Dalarna, Gävleborg and Värmland.

Cooperation between Region Värmland, the cluster managers and the various research departments at Karlstad University has increased significantly during this period. The participation of the private sector through these cluster organisations has also been an important factor in the success of these organisations.

The progress made in Värmland has been widely acknowledged. For example professor Steve Garlick, from the University of Newcastle in Australia, who played a part in both the 2005 OECD team and the Pascal Observatory PURE team, reviewing Värmland, stated that he had “not seen anywhere in the world a region building a regional innovation system in such a short time as has been done in Värmland. This is an extraordinary achievement outside a metropolitan area.”

Cluster organisations

The cluster organisations represent some 300 companies with approximately 30 000 employees which is about 30% of the workforce in Värmland. This generates a critical mass and provides a good opportunity to design development projects that have a significant impact on the region’s economic activity. The overall turnover in these companies is about 3 billion Euros a year.

Through the establishment of innovation platforms, joint strategies, meetings and several development projects a learning process has now been put in place in the region. This has led to a change in action where market-driven cluster managers coordinate the cluster companies and match activities with researchers and students.

Among the region’s companies many are already established in the global marketplace and some are even world leaders in their own particular branches of industry. These big companies can help plug small enterprises into the global system and introduce them to new markets abroad.

The innovation platforms also function as ‘sugar canes’ encouraging new visitors to the test labs to establish development projects or to invest in further cooperative ventures.

In all some 40 persons work in the test labs and about 20 researchers work full time with various projects. The projects attract partners from all over the world and investments of about 30 million Euros have been made over the past six years.

Measuring the focus and the choice of product by tracking the customers eye movements. Photo The Packaging Arena.

Results from the innovation platforms

Some of the results from the innovation platforms include:

• The Packaging Greenhouse has led to innovation development by combining knowledge from researchers with the needs of the companies in the sector. This has also led to the establishment of new companies in the region.
• The Compare Test lab has led to inward investment and research cooperation within the EU´s seventh framework programme.
• Packaging Media lab has encouraged the packaging industry in Japan to initiate long-term business cooperation with the region.
• The material technical centre at the university has led to product development cooperation between a global steel company and a local company.

Assessments show that the participating companies have a stronger desire to grow than other companies in the region. The companies have also increased their participation in research and development and further:

• 30% of the companies say that they have increased their sales.

• 15% of the companies have increased their number of employees.

• 60% of the companies can now recruit the right skills.

• 75% of the companies predict new innovations and products.

• 90% of the companies cooperate with the academic sector.

By using cluster organisations as 'knowledge brokers' and focusing on innovation platforms innovation growth takes place in the region. The visibility of the region increases and it becomes easier for companies to recruit the right competencies.

One challenge is however to retain a long-term perspective when funding is often only short term. Another is for cluster leaders to be at one and the same time communicators, sales persons and pioneers bringing together businesspeople, researchers, students and politicians and getting them all to share a common vision of sustainable growth, innovation and a better performing region.

Over the last ten years Region Värmland together with the cluster organisations and Karlstad University have come a long way in building a regional innovation system based on market orientation, renewal and trust.

Karlstad University has, moreover, seen its researcher complement rise rapidly while the number of students involved in the cluster companies is also increasing. We can also see new companies developing and several inspiring innovation projects being undertaken.

The next challenge will be to connect international partners more closely to the university and to the cluster organisations. It will also be important to market the innovation platforms internationally in order to attract more foreign actors and investment. Developing the connections between the SMEs and the university is also important. A first important step has been taken with the establishment of a cluster room for SMEs at Karlstad University.

Unemployment rates remain high however and the population is continuing to decline. The entrepreneurial culture must therefore be supported and enhanced further.

The reportage about innovation in Värmland is part of the Nordregio REKENE-project. See back-page. The articles were provided by:

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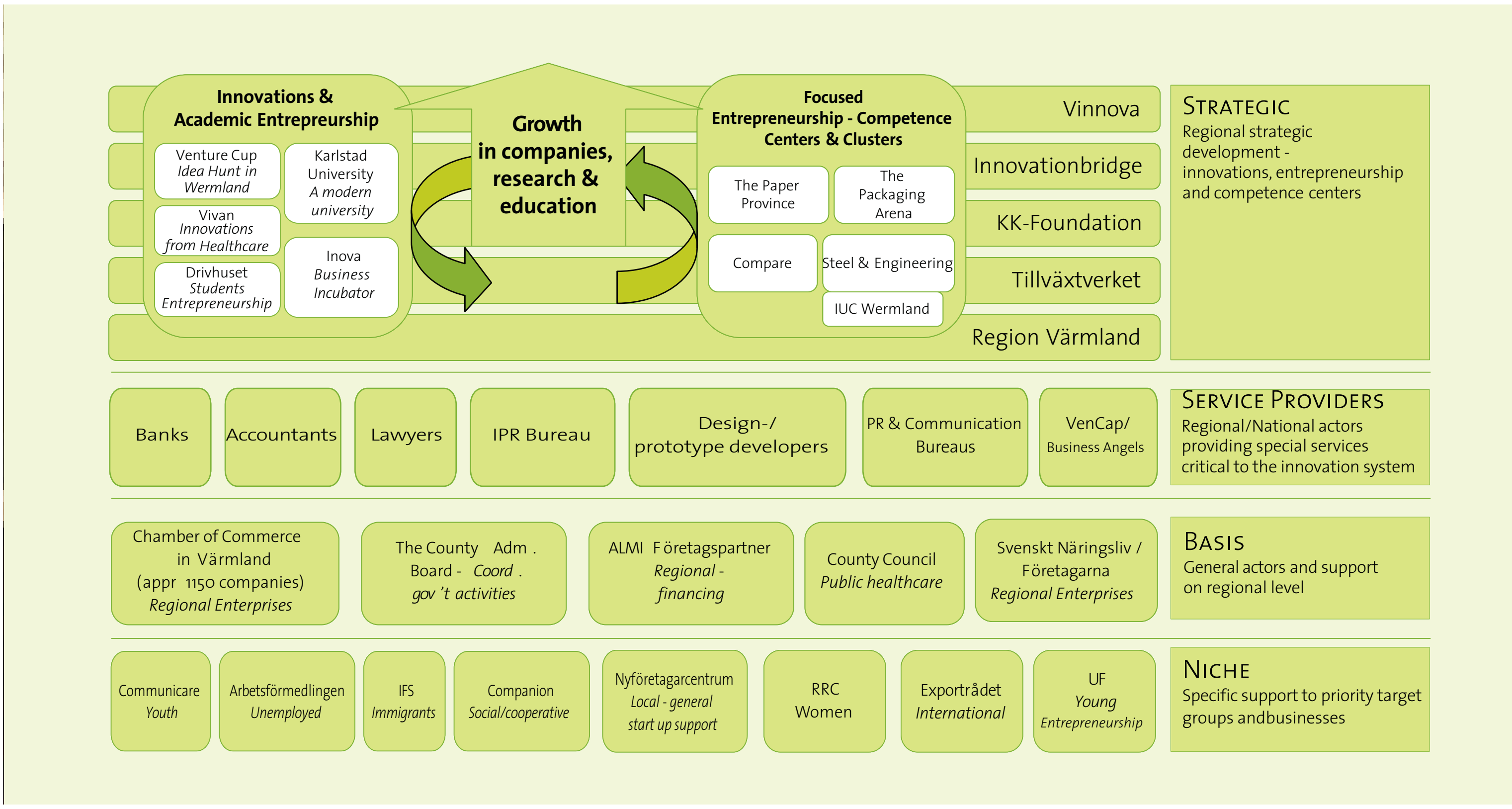


Värmland´s regional innovation system as presented by Region Värmland

From paper to packaging

From paper to packaging

1999: The Paper Province is founded as a cooperative association. Seven pulp and paper technological companies agree to arrange common education and train human resources in the region. The University College becomes Karlstad University.

2000: Five information technology companies, *Ericsson, Telia, WM Data, Enator* and *Net Nova* initiate the Competence Area, Compare, in order to attract skilled people to the region. Design in Värmland – a living lab is formed.

2001: Region Värmland is formed and the regional politicians start with a visit to the big companies in the region to offer cooperation and support. The dialogue formed with these companies results in the launching of a new cluster policy.

2003: The regional assembly approves the regional growth programme. Invest in Värmland Agency is formed. Värmland joins the Cluster Linked over Europe partnership, part of Interreg III C, in order to exchange knowledge with other skilled cluster regions in Europe.

2004: A company test lab in pulp and paper is transformed into an independent and open test lab – The Packaging Greenhouse – run by The Paper Province. The Packaging Arena is formed. The Packaging Arena is a corporate association connected to the Service Research Centre at Karlstad University, which focuses on consumer driven packaging solutions.

2005: The new programme for European Regional Fund NUTS 2 of North Mid Sweden is formed by the regional organisations. The programme runs for the period 2007-2013 and focuses on innovation platforms in North Mid Sweden with a total of 170 million euros funding available. A programme for new (replacement) jobs after the restructuring of the Swedish defence system enables investment in cluster development.

2006: An OECD expert committee makes a regional review of Värmland and recommends a greater focus on the clusters, both in the region and at the university. Karlstad University qualifies as a part of the National Key Actors programme, a VINNOVA-programme that promotes cooperation with the surrounding society. The second open test lab – Compare Test Lab is established. The third test lab – Packaging Media Lab is established in the region. The cluster organisation Steel and Engineering is formed.

2007: The government appoints Region Värmland to be officially responsible for regional development. This provides for stronger regional political leadership. Region Värmland together with Region Dalarna and Region Gävleborg starts the cooperation project SLIM, Systematic leadership of innovation platforms. Cluster organisations get financial support from the ERDF.

2008: Region Värmland launches a new Regional Development Programme and a Research & Innovation strategy linked to Karlstad University. Glava Energy Centre is formed. Kil Innovation Food Arena, KIFA is formed. Cooperation is established with the European Cluster Observatory.

2009: The Care and Wellness sector is identified as a future growth sector in Värmland

2010: A research agreement between Region Värmland and Karlstad University is formed, which devotes 10 new professors and research for 150 million SEK over a five year period to the cluster organisations. A new PhD programme is set up focusing on clusters and cluster development run by Karlstad University. Region Värmland is appointed to lead an advisory board in conjunction with the European Cluster Observatory. The SLIM project is chosen as one of the three best representative projects for Sweden in Brussels.

Contested views of the Baltic Sea Region

In 2009 two major strategic policy documents on the territorial future of the Baltic Sea Region (BSR) were adopted: The EU Baltic Sea Region Strategy and the VASAB Long-term Perspective. Together these documents set the framework for the adoption of a number of jointly agreed points of departure designed to strengthen territorial cooperation around the Baltic Sea. They also raise a number of issues which remain either contested or unresolved.

The EU BSR Strategy represents a novel approach to the introduction of the EU's territorial policy agenda to a rather heterogeneous transnational area. The Commission does not however seek to pursue an exact geographic demarcation. In this they hope to avoid the impression that such a macro-regional strategy might replace the well established and territorially pre-defined INTERREG-programme for transnational cooperation projects. This has existed since 1998 for the Baltic Sea Region.

Perhaps the most eye-catching element in the EU-strategy is that it contains a number of proposed actions/projects that will not be followed by new legislation, instruments or institutions. As such, this approach is labelled as the three "No's" (*no* new legislation, *no* new instruments and *no* new institutions).

In that sense, the EU BSR Strategy can be viewed as a comprehensive and inter-sectoral inspirational source built on four central pillars: environmental protection, economic prosperity, accessibility and attractiveness, and finally, safety and security. This is important to stress, since the strategy is indeed developed by the Directorate General for Regional Policy (DG Regio), but a number of other DGs have also been involved in the elaboration process.

Such a comprehensive inter-sectoral strategy is naturally contested since it is coupled with and partly overlaps other pre-existing polices, programmes and action plans in such a large transnational area as the Baltic Sea Region.

The Commission feels however that a stronger commitment from the relevant local, regional and national stakeholders is needed in order to use the already available financial resources more efficiently in future.

The 4 pillars of the EU Action Plan:
1. To make the BSR an environmentally sustainable place
2. To make the BSR a prosperous place
3. To make the BSR an accessible and attractive place
4. To make the BSR a safe and secure place

The 3 pillars of the VASAB-strategy:
1. Promoting urban networking and urban-rural cooperation
2. Improving internal and external accessibility
3. Enhancing maritime spatial planning and management.

The Strategy has also drawn criticism as some have suggested that the Baltic Sea Region is becoming overburdened and 'too rich' in its 'organisational capital'. The argument here is that a multiplicity of stakeholders now exists with similar interests, agendas and scope of action. This can have the effect of slowing territorial cooperation and the implementation of individual actions and projects.

Other voices have argued that the existing organisations, councils, networks and foundations, which have evolved over the past 60 years or so, already provide both a critical mass and the necessary organisational capacity for transnational cooperation. There is then no need for an additional strategy. For example several of the most important challenges facing the Baltic Sea Region are, it is argued, already being tackled within the context of Nordic/Baltic Cooperation.

It appears that one of the most important elements in the EU Baltic Sea Strategy is its 'demonstration effect' in terms of the development of further macro-regional strategies – currently under discussion for the 'Danube region' and for the 'North Sea-English Channel area'. The critical question however remains whether those strategies would help to better take into consideration the existing 'territorial diversity' and the EU's intrinsic striving for territorial cohesion across Europe. In sum, macro-regional strategies seem to have become a central plank in the EU's strategic policy approach to territorial cohesion.

It could however be argued that such a change in the established EU policy toolbox requires a multi-level implementation approach, diverse partnerships and functioning programme-based management and assessment procedures.

Another pre-condition would be the visibility of the new macro-regional approach, which demands high speed implementation as well as clear and communicable evidence of the succeeded impacts; only then can it be seen to fulfil expectations.

The Long Term Perspective (LTP) for the Territorial Development of the Baltic Sea Region, the so-called VASAB-strategy puts in place another action agenda for the Baltic Sea Region. In particular the LTP takes into account the current challenges with regard to territorial cohesion and spatial integration in the Baltic Sea Region.

It is also tasked with leading the transformation of the BSR into a well integrated and coherent European model for a macro-region up to 2030. In particular urban regions are expected to play a critical role in connecting the potentials that exist in the region thus contributing to a territorial cohesion perspective.

Almost half of the 22 actions in the LTP address the role of urban regions. In other words the VASAB strategy promotes an explicitly 'territorial' approach. Like the EU BSR Strategy the LTP also identifies possible stakeholders who might take responsibility and promote such actions. In addition, as with the EU BSR strategy, it does not introduce any new legislation, instruments or institutions.

The difference between the two strategic documents lies in the different starting points of their authors. While the EU Baltic Sea Strategy addresses the inter-sectoral challenges of the Baltic Sea Region, without mentioning where they occur or where such actions should best be tackled, the VASAB-strategy is the product of a more place-based perspective developed by civil servants of national ministries responsible for spatial planning.

A large number of strategic maps help to illustrate and communicate the territorial development perspective. In addition an attached background synthesis document can be seen as a comprehensive study on territorial challenges with numerous analytical maps.

In this respect the two Baltic Sea Region strategies could at least potentially complement each other quite nicely. There is however as yet, no hint as to how they might cross-fertilise each other.

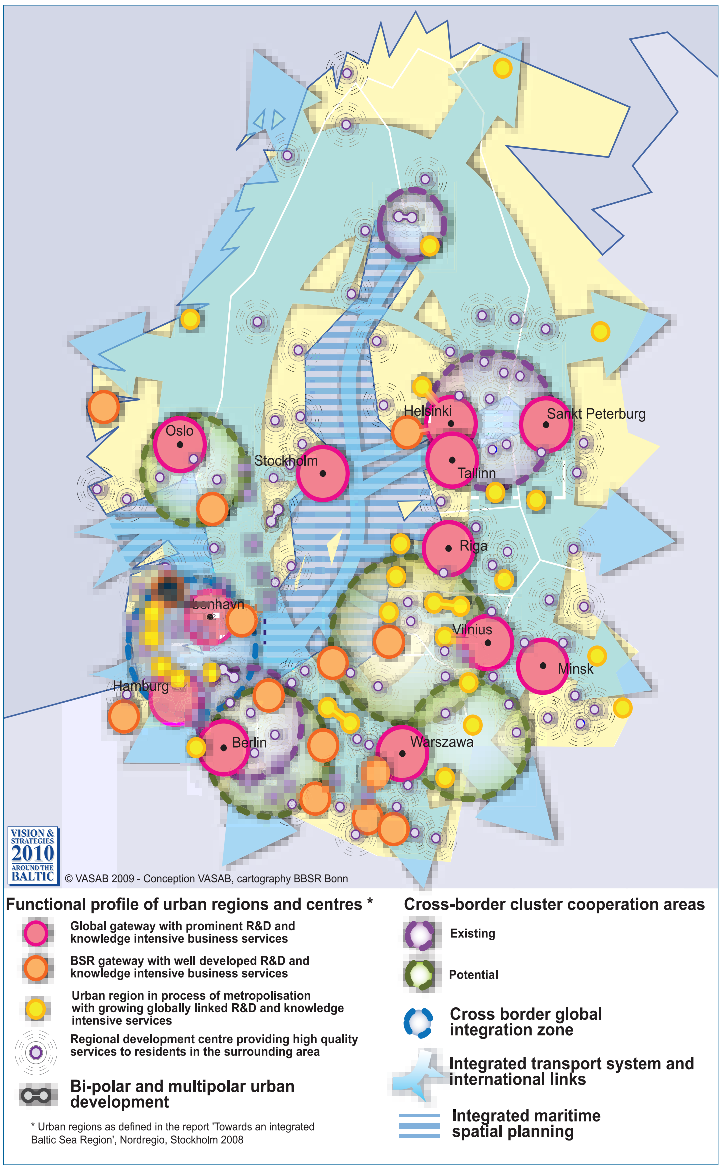
The EU Baltic Sea Region Strategy has been criticised for lacking a clear territorial perspective – it is overly reliant on a sectoral point of view, neglecting for instance the fact that stakeholders in the cities and regions have a responsibility for the well-being of people thus demanding a more comprehensive cross-sectoral and place-based approach.

The VASAB Long Term Perspective could, at least to some extent, compensate for this, if the two documents were to be brought closer together when it comes to the identification and prioritising of actions and projects. The latter also acknowledges rather more forcefully that socio-economic disparities within this macro-region are increasing.

These politically motivated strategies for the Baltic Sea Region have not simply emerged out of thin air. They are both designed to follow a certain normative agenda. At first glance these initiatives, designed to co-ordinate territorial policies explicitly at the transnational level, appear to push forward the integration process though in reality they leave numerous questions unresolved.

Such questions include: How are the pre-selected major stakeholders to be mobilised to work on the proposed actions? Which of the existing financial resources are really available for implementation purposes? And how are these inter-sectoral and far-reaching initiatives to be organised within the existing complex multi-scalar governance setting in the BSR? Otherwise it may be felt that the introduction of the 'macro-region' as a relevant object for policies consumes too many resources at the expense of other fields in politics and planning.

In the light of those rather critical issues the added-value of a macro-regional strategy, such as its potential to address joint challenges from a common denominator (e.g. to protect the Baltic Sea), to introduce a new way of thinking about multi-level governance and subsidiary, to promote a globalisation strategy for the BSR, and finally to overcome, to some extent at least, traditional administrative divisions and cultural barriers, should also be emphasised.



How the VASAB network presents their territorial development perspective for 2030 by integrating the three thematic pillars of the Long Term Perspective. Source: VASAB CSD/BSR.

Further reading:

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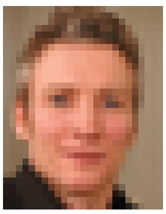

By Peter Schmitt, Senior Research Fellow,
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Iceland lost almost 5000 people in 2009

Not since the registration of migration in Iceland began has net migration been as negative as it was in 2009. In total, close to 11 000 people emigrated from the country while almost 6 000 immigrated, leaving a net negative migration balance of close to five thousand (- 4 835). In Iceland, such numbers were last observed in 1887 when net migration amounted to -2 229.

In 2009 nine out of ten migrants from Iceland moved to another European country. The largest numbers of immigrants (2 800) left for Poland.

38% moved to another Nordic country or Nordic autonomous territory. 75% of these people moved to either Norway or Denmark. Each of these two countries received some 1500 immigrants from Iceland.

Sweden, Germany, Lithuania, the USA and the United Kingdom also received more than 250 immigrants from Iceland.

Poland also provided the highest number of immigrants to Iceland in 2009, with some 1 200. A third of all immigrants to Iceland came from other Nordic countries or autonomous territories, with Denmark providing the bulk of these, with 62% of the Nordic total.

Young emigrants

The gender composition of migrants to and from Iceland has also seen significant changes. Until 2003, the number of female immigrants to Iceland outnumbered the number of male immigrants. During the economic boom years of 2004-2007 the number of male immigrants outnumbered the females. Since 2008, the pre-2003 immigration pattern of females outnumbering males has reasserted itself.

In 2009, the modal age of emigrants from Iceland was 25 years. The age of immigrants was slightly lower with the 20-24 years age group the largest.

Brief boost in the greater Reykjavik area

Following the financial crisis internal migration in Iceland declined in 2009 as compared with 2008. In terms of the number of migrants per 1000 inhabitants the 2009 internal mobility rate has not been this low since 1987.

	Net migration	Immigration	Emigration
Total	-4 835	5 777	10 612
Nordic countries and autonomous territories	- 2 102	1 931	4 033
Norway	- 1 275	301	1 576
Sweden	- 406	327	733
Denmark	- 367	1 193	1 560
Faroe Islands	- 22	47	69
Finland	- 21	48	69
Greenland	- 11	15	26
Poland	- 1 583	1 235	2 818
Germany	- 192	237	429
Portugal	- 179	58	237
Lithuania	- 147	238	385
Czech Republic	- 114	62	176
Slovakia	- 87	43	130
United Kingdom	- 78	239	317
United States	- 75	267	342
Other	- 431	1 973	2 404

Iceland, Migration 2009. Source: Statistics Iceland

Should I stay or should I go? That's the question for many Icelanders. Here from Reykjavik. Photo: Odd Iglebaek

External migration displays a rather different pattern. Immigration to the rural areas of Iceland was particularly strong in the boom years 2005-2006. From 2003 to 2008 immigration of foreign citizens outstripped the net out-migration of Icelandic citizens from rural areas to Reykjavik or abroad. The rural areas saw a rapid dampening of net immigration in 2007, primarily due to a lower number of foreign immigrants, and suffered net emigration of both Icelandic and foreign citizens in 2008 and 2009. In terms of in- and out-migration the East experienced the largest shifts.

In the capital area of Reykjavik, a positive net migration was seen in 2005-2008, with a rapidly increasing inflow of labour migrants. Peaking in 2007, the migration pattern has experienced a total shift over the last 2 years. In 2009, the greater Reykjavik area had a net migration loss of 3 212 inhabitants. The majority of these, 54%, were Icelandic citizens. In comparison, the rest of Iceland experienced a net negative migration of 1 623 inhabitants. Of these the majority, some 56%, were foreign citizens.

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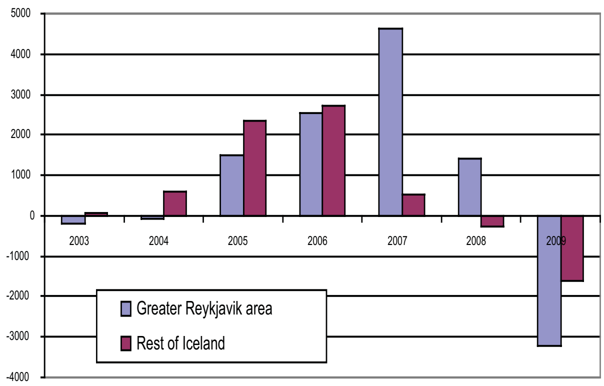
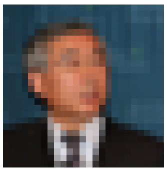


Iceland net migration 2003-2009. Greater Reykjavik area *vs.* the rest of the country. Source: Statistics Iceland


Chinese scientists leave Shanghai for a five month expedition to Antarctica. Photo: Wang Rongjiang / Imaginechina / SCANPIX

China wants an Arctic role


Tang Guoquiang

Tromsø: A couple of years ago it was the European Union. This year it was China. Both want a larger role in determining the future of the Arctic Region. This is one of the main lessons that can be drawn from this year's Arctic Frontiers Conference.

The Arctic and the issues surrounding it are fast assuming a central role on the global political agenda. The potential for fishing, for oil and gas exploration and later also for increasing transport linkages via the utilisation of the new ice-free sea-routes, which will open up as the polar ice melts, is great. This undoubtedly gives the region a new status.

This was amply demonstrated by the fact that for the first time China officially participated in the latest Arctic Frontiers conference, held in Tromsø, one of the major international forums seeking to formulate the Arctic agenda. Previously, in 2008, the EU had assumed a similar role.

The Chinese ambassador to Norway, Tang Guoquiang, outlined the position of this growing world power underling that, for China, the two most important issues are climate change and the regulation of the sea lanes that will one day pass through the Arctic Ocean. For non-Arctic countries such as China these are the two topics which justify our having a say.

Canada, Denmark (including Greenland and the Faroe Islands) Iceland, Norway, Russia and the USA (Alaska) are the states bordering the Arctic Ocean. Until now they have all *de facto* agreed that the international convention on the law of the sea, signed in 1982 is adequate to regulate the territory - *de facto* rather than *de jure* because the US more or less on principle does not sign conventions like this. China also recognises the sovereignty of these five countries, added Hans Corell, the former advisor to the UN on international law.

At the same time, many are of the opinion that this convention does not go far enough since it does not provide any protection with respect to the industrial activities now being planned. *Greenpeace* is among the organisations articulating this particular point of view.

In respect of the development and implementation of policies in the region the Arctic Council is in many ways the most important forum here. This body is, in some ways, a very exclusive club only open for full membership to the six states already mentioned plus Finland and Sweden.

Others can however join as permanent participants or as observers. In the first group we find bodies representing indigenous peoples like the Saami Council. The observers are generally international organisations or non-Arctic states. France, Germany, Poland, Spain, the Netherlands and the United Kingdom have thus far joined on this basis It is in this context that China sees an opening, according to ambassador Tang Guoquiang

Could there be more to it? Some scientists think so, and they compare China's polar engagement to their ongoing quest for mineral resources in Africa. – There is no doubt that China is primarily interested in the potential resources of the Arctic notes Oran Young, an American specialist in polar science (The Guardian Weekly 12.02.10).

Indeed, China has mounted three polar expeditions since 1999 with a forth planned for this year. Part of this Chinese engagement is related to the international debate on climate change. Having your own data will undoubtedly be of value in this context.

The Arctic Frontier conference was held during the period 24-29 January and had 750 registered participants from the political, scientific, defence, industrial and trade sectors. It is arranged as a joint venture between, among others, the University of Tromsö, the oil-company *Conoco-Philips* and the regional authorities of the county of Troms.

By Odd Iglebaek
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Overseeing Europe´s gas supply at Gazprom´s Headquarters in Moscow. Photo: Mikhail Metzel - AP

Gas slowdown in the High North

The expansion of exploration for and production of so-called slate-gas in recent years has sent shivers down the spines of the more traditional gas producers, both on- and off-shore, The argument here is that it is cheaper to produce and develop these "new" gas-resources.

In the High North, it is primarily the development of the large Russian Shtokman gas-field, close to the island of Novja Semlja in the Barents Sea that has been delayed.

Originally the plan was to begin production here in 2013. Early February this year the companies involved, namely, *Shtokman Development* jointly owned by *Gazprom*, *Total* and *Statoi*l, announced that they are now planning to begin production in 2016 at the earliest. Many observers however think that a start date of 2020 is more likely.

One of the major reasons for the slowdown relates to the technical problems which need to be solved before production can begin in the cold Arctic waters. In addition, uncertainty in terms of future wholesale gas prices on the world market has also had a major impact – particularly in respect of investment decisions.

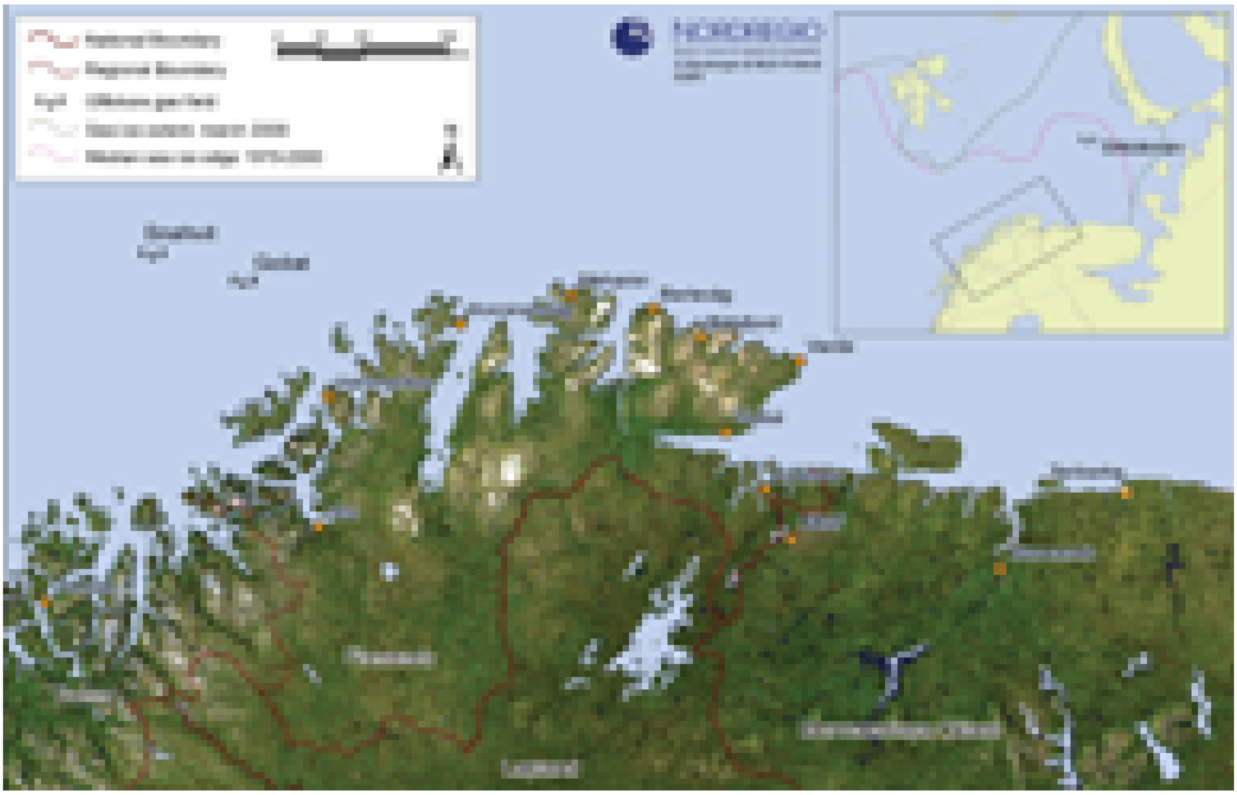
What implications will these delays have on jobs? When *Statoil* started producing LNG (Liquid Natural Gas) from the Snøhvit-field the decision was taken to produce more or less onshore on the island of Melkøya just outside the town of Hammerfest. This generated high incomes during the construction phase but only some 300 jobs on a more permanent basis. (See Journal 3/2008 for more details.)

Shtokman, which is a much larger field than Snøhvit will most likely concentrate on off-shore production. Still the installations represent major opportunities both in Northern Russia and in the county of Finnmark in Norway, particularly in respect of service sector employment. In Russia the town of Teiberka as well as the city of Murmansk have great expectations in this regard while in Norway the towns of Kirkenes and Vardø hope to join in this gas bonanza.

Both in Norway and in Russia population levels in the high north are declining mainly because of the lack of jobs which forces people to move away in search of work. The fishing industry, mining and military activities which for decades were the backbone of the economy in these harsh areas, are all in decline.

Will the development of oil and gas production change this? To some extent yes. But if truth be told not significantly as the new jobs created are just too few in number. This is also the argument of Peter Arbo and Bjørn Hersoug at the University in Tromsø, who have studied the likely impacts in great detail (in Norway's *Plan* magazine No 1/2010). They argue that the number of jobs created will be fewer than those lost in the fishing industry.

Russia is the world's largest producer of gas. Millions of EU citizens are also completely dependent on Russian gas for heating and cooking. The sale of gas to these countries also generates significantly higher profits than selling it in Russia itself or to countries which used to members of the Soviet Union.



Snøhvit, Goliat and Shtokman are the known gas-potentials of the High North. While Snøhvit and Goliat are less than 200 km offshore Shtokman is some 500 km offshore. Production at Shtokman is planned to start in 2016 but it may be further delayed. Map by Johanna Roto Nordregio.

For several years now this increasing dependence on Russian gas has been an issue high on the European political agenda. A couple of years ago some Swedes also took the initiative to try to stop or at least move Nordstream, a 1220 km long new pipeline through the Baltic Sea, designed to transport gas from Siberia to Western Europe.

These protests seem however to have subsided while the first of the large tubes (approximately 1.5m in diameter) for the pipeline are now being transported from the small village of Slite on Gotland out to their future location. If targets are met within a year or so even more Russian gas will reach Western Europe.

Most gas in Russia

Some 70 countries in the world produce gas. Russia is the largest provider producing some 654 billion m^3 annually followed by the USA with 546, the EU 198, Canada 187, Iran 112 and in sixth place Norway with 100.

The overview of proven gas reserves lists 100 countries including those in the EU. Again it is Russia on top, but now really in a class of its own with more than a quarter of all known reserves, 44 out of the total of 175 trillion m^3. (1 trillion m^3 = 1,000,000,000,000 m^3).

Other countries with large reserves include Iran 27 and Qatar 26. The USA has 6 and Norway 2.2, a bit less than the European Union as a whole which has 2.5. Norway has the world's sixteenth largest reserves. All figures in trillion m^3.

Of the world's total estimates for gas-reserves some 40 trillion m^3 (22%) are slate-gas. India and China together have 20 . The USA has 10 and Europe 4 .

In Europe, Poland, Germany and Sweden are the most interesting countries in respect of the extraction of slate-gas though Belgium, Austria, Hungary, Italy, France and Switzerland all have significant potentials.

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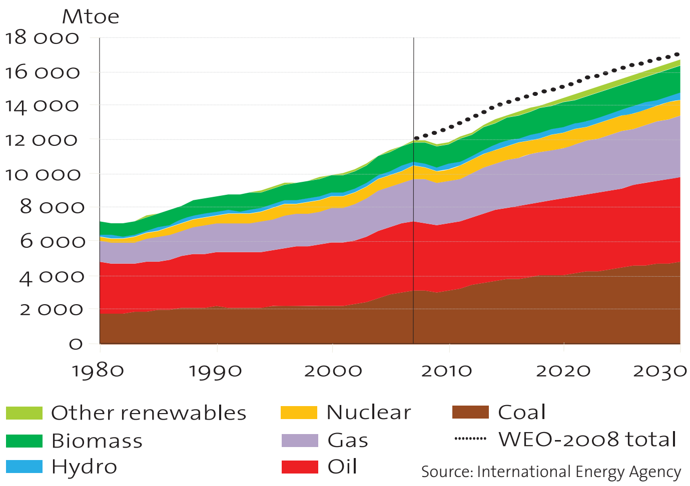
Predicting the world´s energy supplies.



Source: International Energy Agency

Climate change in the Murmansk region

In the last two years Russia has made some progress in coming to terms with the necessity to adapt to climate change. In this respect, during the period 2008-2009 several important events took place: The "*Assessment Report on climate change and its consequences on the territory of the Russian Federation*" was issued, and a project on the Climate Doctrine of the Russian Federation was published for open discussion before gaining Presidential approval. The Climate Doctrine was adopted on 23 April 2009 signifying a very significant step forward for Russia in this area.

On the state level the problem first started to be seriously addressed by one of the federal bodies – the Federal Service on Hydrometeorology and Monitoring of the Environment (*Rosgidromet*) of the Ministry of Natural Resources and Ecology of the Russian Federation.

The Murmansk region as a subject of the Russian Federation naturally participates in the realization of state policy to combat climate change. The Murmansk region as a one of the northernmost regions, and as such highly vulnerable to climate change, was chosen as a venue for the international conference "Adaptation to climate change and its role in ensuring sustainable development of the regions" in May 2008.

The Conference was organized by the United Nations Development Programme (UNDP) and the Russian Regional Ecological Centre (RREC) under the auspices of the Federal Service on Hydrometeorology and Monitoring of the Environment, the Administration of the Murmansk region and the Institute of the North Industrial Ecology Problems of the Kola Science Centre (RAS).

At the Conference adaptation policies in the Arctic were discussed and the action plan for adaptation to climate change for the Murmansk region was suggested. Another aim of the conference was to expand the dialogue between the representatives of the Russian authorities, the business community, academic circles and the general public on the issue of climate change.

The results of the conference among other data were used by the Ministry of Natural Resources in 2008 in the elaboration of the "*Strategic programme of action on preventing marine environment contamination in the Russian Arctic*". In this document the problem of climate change was clearly recognized and the aim of adaptation was forwarded.

The regional government included the climate change theme in the agenda of the Murmansk International Economic Forum held in October 2009. The Forum was an extremely important event for the region, as well as for the Russian North as a whole, and for the Barents Euro-Arctic region (BEAR). Ministers of Foreign Affairs from the BEAR member countries, representatives of the business community, including top people from some of the largest Russian and foreign oil and gas companies taking part in the Stockman deposit development such as *Gasprom*, *Rosneft*, *StatoilHydro*, and *Total* participated in the Forum.

An expert roundtable discussion on "*Complex climate strategies for the sustainable development of Russian Arctic regions under conditions of climate change*" was held at the Forum. Here also the UNDP/RREC analytical report on the "*Role of complex climate strategies in providing sustainable development in Russia's northern regions - Model example of the Murmansk region*" was presented and discussed.

The following questions were discussed: identification of priorities for actions and projects on the reduction of greenhouse gas emissions and adaptation to climate change for the Murmansk

region; potential sources of financing for proposed projects; integration of climate strategies into the programmes of socio-economic development for the region and into the programmes for the sectors of the regional economy; the involvement of the regional administration and the business community in climate strategy development and realization; and various public information actions. Proposals for the priority tasks for decision-makers in the Murmansk region were also formulated.

Public discussion on climatic change across the Murmansk region cannot however be viewed as extensive. Such a debate takes place mostly within the confines of the scientific community at various seminars and conferences, and among non-governmental ecological organisations. The theme is also often touched upon in scientific publications, not only in ecological, geographical and biological publications but also in economic ones. For example in 2009 a book entitled, "*The effects of possible climate change on the economies of Russian Arctic regions*" (Selin V. *et al*.) was published by the Institute for Economic Studies of KSC RAS.

Regional non-governmental ecological organisations are also quite active and consistent in their activities in respect of climate change. For example, in October 2008 the International Autumn Forum "*Climate change: increasing threat to security*" organised by the non-commercial partnership *Socium+* was held in Murmansk. In addition, a jazz-rock concert, "*Global warming*" was also organised during the Forum.

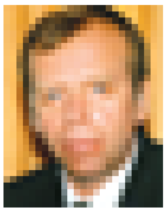
For the last four years each February in Apatity City the "*Snowmen against global warming*" event has been organised by the local non-governmental environmental organisations. In spring 2009 the regional ecological organisation *Nature and Youth* participated across the region in the 'Earth Hour' event on March 28. On the Global Day of Action Against Climate Change, on October 24, 2009, Nature and Youth also organised a screening of Al Gore's film *An inconvenient truth* in one of the art-cafes in Murmansk. However large-scale events similar to those that were held that day in many cities across the world were not really witnessed here.

It should however be noted that only a small section of the population of the region has thus far demonstrated an interest in the problem of potential climate change. To a large extent this is undoubtedly due to the fact that information on climate change in Russia remains both limited and contradictory. It is mainly provided by the mass media (which frequently adopts an ironic or apocalyptic approach to covering the theme) often focusing on large-scale cataclysms (typhoons, earthquakes, tsunamis etc).

These natural phenomena have not of course affected the Russian North. As such, it is likely because of this that the majority of the area's population does not seem overly concerned about potential climate change. According to our estimations only about 5% of the population are interested in, or worried about, this problem. More reliable data will be received from a sociological survey conducted on attitudes to climate change which IES KSC RAS plans to undertake in the cities of the Murmansk region in 2010.

In our opinion, in the Murmansk region there remains a serious lack of attention being given to the issue of climate change. This lack of urgency is shared by the state and municipal authorities, the business community and non-governmental organisations.

Currently across the region officials and scientists are planning to investigate the problem and monitoring ongoing changes. But this approach is no longer enough. It is now necessary to forge ahead with consistent practical work at all levels to combat climate change.



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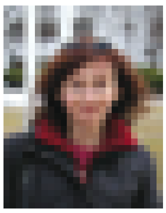

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How will people living in Murmansk (photo) experience the debate on climate change?
Photo by Google Earth - ID: 1319160

The REKENE study is in cooperation with the EURODITE study.

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Knowledge dynamics in regional economic development

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In today's globalised world, it is a well-developed knowledge economy that gives a competitive edge in regional development. Regions must master knowledge dynamics: the ways in which knowledge is created, transmitted and applied to economically viable uses.

The conference will present fresh results from the REKENE research project including case studies from a number of regions in Sweden, Finland, Denmark and Iceland.

Programme highlights:
- What do we know about territorial and firm-level knowledge dynamics? Findings from the study
- The touch and taste of innovation. See and experience examples of innovations from the regional showcases
- Practical policy tools for harnessing knowledge dynamics. Workshop on the REKENE policy toolkit.
- International implications.

Reflections and comments from international experts:
• Ylva Williams, CEO, Stockholm Science City Foundation
• Janne Antikainen, Regional development director, Ministry of employment and the economy. Finland
• Karl Ritsch, project manager, Styrian Business Promotion Agency, Austria

For more information about the conference see www.nordregio.se.
For more information about the project see www.nordregio.se/Rekene

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