Speaker: Alan Simpson, MP for Nottingham South

"I am proud to have lived most of my life in Nottingham. I have an eco-daughter of eight months old. I hope she would be able to live in Nottingham in 2050 and unless we make radical change in this decade I don't know if she would."

He went on to say:

He was really pleased with the work that Councillor Edwards had pioneered to drive forward the work on the climate change agenda. The goalposts are already moving though. As a Government we have set targets for 2060 and 2100, but scientists tell us that rates of climate decay outstrip all current targets.

We have to make a cut in gross complacency. One of the things we have to do in the next ten years is engage in a radical transformation of the nature of our city and the way it works. Nationally, scientists will report back to the Government next spring and will say that if we do not make changes within the next ten years it will be impossible to catch up.

Locally, exciting work is going on in the Meadows through the OZONE project. There are many changes in place in Europe and Scandinavia.

Climate change in Nottingham has three interconnecting crises:-

- **Energy security:** We must use bio-digesters to produce gas from food waste, supplying both residential areas and commerce. In Germany, people get paid four times as much for green energy. 80% of the new buildings in Berlin now generate their own energy and make money in the process. If we are not buying green energy then we are just not part of the game. Buying from green energy suppliers also puts pressure on other suppliers.

- **Water management:** Turning a problem into a solution. Victorian sewers and drains cannot cope with torrential rainfall, so can we change the power of this rainfall into an energy source? In the Netherlands, for example, the sea is no longer held at bay but used to generate energy.

- **Food sustainability:** We need to change our presumptions about food. Just as in Italy, we should expect to have access to fresh food and know where it comes from.

"Nottingham is a leader in the field and it has to be a leader again. Cities will be much more of an engine of change than the national Government."

"We have to be more adventurous and more dogmatic in saying to developers that if they cannot build energy efficiently in Nottingham, then don't build."

We have to be much more assertive in setting benchmark standards. In Italy terms are set for how towns and cities are developed – development has to be sustainable and for the good of the culture of the city.

"This cannot be an era in which we build today and expect the children of Nottingham to pick up the cost and clear up the mess."

"This has to be the bedrock of a sustainable city. I hope we step up to the mark and take on those who say they can't afford to do it, when in the long-term that means a bigger price tomorrow. We have to have the courage to make this demand so that our children and grandchildren will have a city fit to live in."

We need to think of interconnectivity: eg solar roofs on houses in the Meadows. This energy is not needed by the houses in the day, so why not have a connection to businesses across the road? The businesses would reciprocate by supplying energy at night.

Some examples of good practice: 50% of the water used in a school on Mapperley Plains is provided through its own recycling facilities.

City Hospital has transformed its catering by connecting with local food suppliers.

From the floor:

- Should be more pressure on developers to produce environmentally friendly buildings.
- Businesses are sometimes loathed to contribute. One scheme to recycle PCs has kept 280 tonnes out of landfill in the past three years, yet one business would not contribute £30 towards keeping six VDUs out of landfill.

Speaker: Prof Saffa Riffat, University of Nottingham (School of the Built Environment) Sustainable Technologies and Eco-buildings

Described new technologies being developed to provide sustainable buildings, renewable energy and energy efficient systems crucial to UK and rest of the world to combat climate change, global pollution, demands of developing and developed countries, over-dependency on oil and political instability.

Outlined why it is now vital to develop new technologies:

2 billion people have no access to main grid electricity; pollution from industry, global aviation, tall buildings.

1 tonne of CO2 looks like 10m wide hot air balloon or 6 double-decker buses but average house in UK emits 15 tonnes of CO2 pa. London to Beijing aircraft uses 400 tonnes of CO2. Average house in UK emits 15 tonnnes of C02 pa.

World consumption of fossil fuels:

85 m oil barrels a day = 1 Olympic-sized swimming pool of oil consumed every 15 seconds)
240 billion cu ft natural gas per day
14 m tonnes of coal

Enormous amounts of energy used on food transportation, waste and packaging. Takes 2/3 glass of crude oil to produce one glass of milk.

USA largest polluter with China second largest. In India and Madras residents pray for fresh air.

Solutions already being developed, tried and tested –

University of Nottingham developing sustainable buildings with renewable energy, re-use of waste and energy efficient systems ie

- David Wilson Millennium House on Nottingham campus followed by showcase of sustainable, low energy, high insulation, waste-recycling homes and technologies on campus, developed with input from students and based on people's lifestyles;
- Jubilee Campus eco development built with European funding
- New University of Nottingham sustainable campus in China developed in 18 months.
- Make components on site to reduce transportation.

Prof Riffat outlined various sustainable construction systems for future house building that reduce water use, CO2 emissions, and energy use, and captured heat from waste water, provide energy.

In China, new low-energy, carbon-neutral eco-city of Dongtan being created 25 miles from Shanghai being using innovative technologies but not sure such development would get planning permission in this country. Necessary to provide for millions of Chinese migrating from rural areas into cities.

Example of simple co-working solution captured CO2 emissions from power stations which could be transferred for use in adjacent green houses.

An Academy of Sustainable Development would train experts and craftsmen and women in new, sustainable technologies.

Has to be individual financial benefits e.g. a green meter in homes to measure not only amounts of water and energy used but also CO 2 emissions and the amount of water and energy created or recycled within the home and from renewable sources.

Speaker: Alex Nickson, Climate Change Adaptation Strategy Manager, Greater London Authority

Climate change is no one political issue for London Mayor Ken Livngston and his deputy. Climate Change Adaptation Strategy for London – first in the world. Looking forward to some rivalry between London and Nottingham.

Alex said we need to stop things getting worse and got to start building for the future – a technological and cultural shift, if we don't adapt it's lights out for London, the fourth largest international finance city of the world.

Natural disasters across the globe affect large communities in London and the rest of this country who have family in the disaster zones and feel the pain of climatic catastrophes elsewhere; Hurricane Katrina affected thousands indirectly through London insurance houses, some of the largest in the world.

Climate change has got to move from being an environmental issue to being a social issue. The poorest will be hardest hit and least able to adapt. Most deprived communities live closest to River Thames and in greatest risk of being flooded.

Actions underway - Mayor's Climate Change Adaptation Strategy (in preparation)

London Climate Change Partnership

Actions which help us prepare for inevitable changes in climate:

- Managing flood risk)
- Designing homes and infrastructure) Effect felt locally
  for higher temperatures) Short to long term
- Improving water efficiency)

Actions which help us reduce our greenhouse gas emissions

- Improving energy efficiency)
- Using renewable energy) Globally
- Reducing private car use) Long term (more than 40 years)

Actions underway – Mayor's energy Strategy; London Energy Partner
London Hydrogen Partnership; Climate change Agency

Warmer, wetter winters; hotter drier summers

Summer 2050s (high emissions) + 3°C; -30 – 40% rainfall
Winter 2050s (high emissions) + 1.5-2.3°C; + 25-30% rainfall

- By the 2040s, European summers like 2003 could become normal' by the 2060s they would be cool
- Coastal areas will be increasingly threatened as sea levels rise

How is London vulnerable to climate change?

London is so 'concreted up' that it has lost ability to drain away. Half an hour of rain closed five main line stations. Must cost the fact that thousands of people were not able to get home. Water table raised because of lack of porosity. Affecting deep tube lines.

Constant shrinking and expansion of clay on which London is built is causing breakages to Victorian water mains. Population of London due to grow by 800,000 and already there are water shortages.

In 1950s few homes got hot. Now get so hot they are a threat to health, especially in the inner city more deprived areas. 40 per cent of the CO2 emissions come from **our** homes, Inner London is 9 degrees warmer at 2am than the Green Belt, which could be why 600 people died in 2003 heatwave.

New buildings must be built to adapt to climate changes over the lifetime of the building, not our lifetime – green roofs, green walls, more trees (will help make city more permeable, reduce flood risk.) We must do, but are not doing, what we need to do now if we are going to give our own children the quality of life that we enjoyed. We know the problems and we have solutions and very small changes could have massive repercussions for the planet. We know climate change is going to hit our immediate family most but we don't do anything about it.

He urged everyone to make use of what is being done elsewhere to tackle

- Flooding
- Water resources
- Overheating
- Subsidence and heave
- Wind storms
- Global climate events

London already faces limited water resources. Climate change will affect water availability (to existing consumers/users) through:

- Reducing ground water recharge
- Reducing river flows
- Increasing loss from broken mains (subsidence)
- Increasing evaporation
- Increasing demand

Energy efficient cooling:

- Good natural ventilation
- Carbon efficient mixed mode ventilation
- Carbon efficient mechanical ventilation

London Climate Change Partnership – led by GLA with 30 public, private and voluntary sector organisation to help ensure that London is prepared and able to adapt to climate change impacts.

Current work streams - Financial Services, International exemplars,
Future work streams - retrofit of existing development, financial incentives

Adaptation aims;

- Ensure that climate change does not increase social inequality
- Ensure that new development is located, designed and constructed for the climate change it will experience over its design life
- Ensure that contingency planning is in place (and tested) to manage extreme weather events
- Ensure that London's growth reduces London vulnerability to climate change
- Ensure that London's businesses are prepared for local and global climate risks and opportunities
- Promote adaptation of the natural environment
- Position London as an international role model in adapting to climate change

GENERAL DISCUSSION SUMMARY

The following is a summary of the general discussion ahead of Full Council, as part of the Climate Change Conference at the Council House.

Q1 (John Hyam, Nottingham resident)

There is a lack of specific reference to allotments. Having things closer to where people live, greater permeability, delivery of food, are all addressed by the promotion and protection of allotments.

Q2 (Stephen Hyde)

We should compliment our local authority for their initiatives and organising today. Nottingham City Council is yet to adopt the Merton Protocols for sustainable development, which should be remedied especially given the huge amount of development currently underway in Nottingham. I am told it will take 18 months to do; why not 6 months? This would make the biggest single difference.

Mike Edwards (ME): 18 months is the legal time to get that through the process. We need to talk to developers and planners about how we improve the quality of new developments and adopt new approaches to architecture. Why aren't basic ideas that have been around in Northern Europe been adopted here? We need to do something about British enterprise trying to catch up with this.

Alex Nickson (AN): New build is a small proportion of the total floor space of cities – we need to concentrate our efforts on existing buildings. We need to do something about our own homes and offices if we are going to touch the climate change issue. We are trialing a green concierge service in London where someone comes and assesses your building for what actions could be taken.

Q3

In Nottingham an agreement on CO2 emissions doesn't have any targets set. When will they be set?

ME: I think there are some targets in there.

Q4

I have a proposal for the businesses here and in Nottingham – we could start a group that takes donations from businesses to kit out low income homes with energy saving devices.

Q5 (Gary Smerdon White)

Evening Post ran something recently asking politicians to say what they are doing; ranged from unambitious to sarcastic. The council is leading with events like this but perhaps people [at the council] should be making 5 promises on issues like this; I am sure businesses will follow suit.

Q6

Government want us to support this but then supports building new airports and sometimes local planning decisions are overturned. We need to set targets. Devolution of certain things means there is no national development of some of these issues.

ME: We need to establish partnerships in order to see how we next raise the bar.

Q7

Councils need to provide incentives, carrots not sticks.

Q8 (Ian Hewitt)

I am concerned about not being able to link things up. There are tools for doing this, one of them is the environmental footprint; we need to turn that into effective action. We need to build a map for the next 50 years.

Q9

Some people find even recycling in Nottingham quite difficult. We need to simple ways of getting people engaged, with a 'shopping list': walk to work, shop locally etc. Maybe we need to make rules about what we must and must not do.

Q10 (Martin Smith, Harts Hotel & Restaurant)

We have a policy on sustainable issues; it can often come down to cost savings, eg, planned preventative maintenance of machinery, replacing items with more energy efficient alternatives.

Q11 (Peter Saunders, local resident)

What would it cost to provide every household locally with a solar panel. They could be produced locally. The council couldn't do it on its own.

Q12

It would be beneficial to roll out the debate and communicate the changes that are agreed today to local schools.

Q13

Can the council make a commitment to print all its publications on recycled materials.

ME: We are trying to turn this country around, it shouldn't be boiled down to using recycled paper.

Q14

Every little helps, we should not belittle the importance of things like using recycled paper.

Emma Dewinton: We are looking at these more detailed things but today is about broader issues.

Q15

What arrangements are in place to ensure this issue transcends party politics.

Q16

How do we intend to raise awareness, especially when a lot of young people aren't bothered about the issue.

Q17

We have a big recycling scheme at Bluecoat 6th form College but the Council is not collecting the items.

AN

We can't scare people into action, but we do need to engage with people on this issue.

ME:

This is not an issue that is raised on the doorstep, sadly. But we have shown that we do care. We have a range of policies that take us a step on from where we've been. We are looking at examples of good practice in this area to see what more we could be doing. What we have heard today is useful. I think there should be a very big focus on the building of new developments. We will reflect on the point about allotments, local food and green spaces. Greening up more areas and buildings is something we need to look at. The point needs to be made that a lot of the things we are talking about actually make business sense. We will continue to mobilize people to make a difference, in the way we mobilized people to see the Al Gore film. We need to be serious about the way we go about making a change.

Discussion from the floor during presentations:-

- High cost of adding solar thermal panels to homes. Prof Prof Riffat said they could be accessed more cheaply.

- Alan Simpson advocated local energy networks and local energy companies to provide energy services, not just sell energy. Similarly, local food networks, local skill provision for new sustainable technologies.

- Concern over development of Green Belt, particularly in the south east, when there is a need to increase green space. Need to put green space at centre of planning proposals and develop around green space. Olympics will be the greenest games and developers being challenged to meet green building standards of Olympic village.

- Sustainable energy produced in Meadows could be used to power neighbouring NG12 business site during day and NG12 stored energy could power The Meadows homes in the evening.

- We must focus on solution, not the problem, and Nottingham could be first. If we haven't got the skills in Nottingham we should be looking at skills development

- Government, business community and local government must work together towards the same goals through planning strategies, definitions of waste and getting rid of boundaries.

- Let's do it in Nottingham first – and soon.