

China creates world's 1st coal-to-ethanol production line

China has successfully created the world's first production line to turn coal into ethanol, or drinking alcohol, the Chinese Academy of Sciences said on Friday.

Created by Shaanxi Yanchang Petroleum and the academy's Dalian Institute of Chemical Physics in Liaoning province, the production line went into operation in January and has the capacity to make more than 100,000 metric tons of pure ethanol every year, according to Liu Zhongmin, the institute's deputy director.

By 2020, China will build a factory capable of producing 1 million tons of ethanol each year using the same technology, he said.

The country currently produces 7 million tons of ethanol each year using other methods, which can "hardly satisfy" its industrial and energy needs, according to Liu.

"Most countries produce ethanol using food, such as corn or sugar cane, but this is not a viable option for China given its massive population," he said.

"By turning China's abundant coal resources into ethanol, the technology will help safeguard our energy and food security,"

Moreover, ethanol is a green fuel and versatile ingredient. "Utilizing it could reduce our dependency on fossil fuels, and make our industrial production and energy structure more environmental friendly," Liu said.

In addition to alcoholic beverages, ethanol can be used to produce thousands of everyday products from plastics to detergents. It can also replace more toxic ingredients, such as methanol, during industrial production.

Other uses include mixing it with petroleum to increase its fuel efficiency and reduce pollution. An abundant supply of ethanol would also make ethanol-fueled vehicles more viable, Liu said.

News story: Priti Patel will double public donations to the Disasters

Emergency Committee East Africa Crisis Appeal this weekend

In response to the unprecedented public support for the Disasters Emergency Committee East Africa Crisis Appeal, this weekend the UK Government will match pound for pound the next £5 million donated by the public.

This is in addition to the £5 million match funding already donated by the UK Government which helped Britain raise a phenomenal £12 million for the [DEC appeal](#) in just 24 hours.

International Development Secretary Priti Patel said:

I want to say a huge thank you to the British people. Once again, the life-saving generosity of the British public has exceeded all expectations with their response to this vital cause. I've seen first-hand how every penny really does make a huge difference to saving lives across East Africa. That's why the Government will double donations up to £5 million this weekend to make your money go even further.

The Great British public has acted without hesitation to stop people dying of famine and hunger. Right now UK funded aid is reaching those most in need with food, water and emergency healthcare. Now it's time for the international community to step up and follow Global Britain's lead before it's too late.

This new support will double the impact of the public's own donations up to an additional £5 million and ensure that charities working on the ground can reach even more people in need.

This brings total UK Government match funding for the DEC Appeal to £10 million.

The UK's support will go directly to the Disasters Emergency Committee Appeal and provide vital and life-saving emergency supplies.

The Disasters Emergency Committee brings together 13 leading UK aid agencies to raise money at times of humanitarian crisis in poorer countries. By working together we can raise more money to save lives and rebuild shattered communities.

Notes to editors:

Donations can be made at www.dec.org.uk or by calling 0370 60 60 610.

- £25 could provide a month's supply of life-saving peanut paste to a malnourished child.
- £60 could provide clean drinking water for two families for a month.
- £100 could provide supplies to a clinic treating severely malnourished children for a week.

UK support to Somalia:

- In Somalia, more than 6 million people have no reliable access to food and there are 360,000 acutely malnourished children. All the signs are pointing to a famine as bad, or worse, than the one in 2011 which killed 260,000 people. The UK is acting now to prevent this.
- We recently announced humanitarian support for Somalia worth £100 million to respond to famine warnings, on top of a further £10 million announced by the International Development Secretary Priti Patel during a recent visit to Somalia.
- This £110 million of UK aid support will provide:
 - Up to 1 million people provided with emergency food assistance
 - Over 600,000 starving children and pregnant and breastfeeding women provided with nutritional interventions
 - Over 1 million people provided with safe drinking water and hygiene
 - More than 1.1 million people provided with emergency health services.
- Global Britain will bring the international community together in London for a conference later this year to agree future support to Somalia, which is firmly in the UK's interests.

UK support to South Sudan:

- The situation in South Sudan is dire. Children will die tomorrow, and the day after, and the day after that, until the South Sudanese authorities allow food and life-saving aid to reach those most in need.
- Famine has now been officially declared in some parts of South Sudan – the first declaration of famine anywhere in the world for 6 years. 100,000 people in Unity State (Leer and Mayendit Districts) are now at risk of starvation.
- Almost 5 million face the daily threat of going without enough food and water and 3 million people have been forced from their homes because of ruthless violence and widespread rape.

- The UK was one of the first major donors to respond to the UN's appeal to South Sudan and we are leading the way by making sure millions of people in South Sudan get urgently needed food, water and medicine, as well as longer term support to provide much-needed education.
- The UK has announced £100m for 2017/18 that will provide:
 - food for over 500,000 people
 - life-saving nutritional support to more than 27,500 children
 - safe drinking water for over 300,000 people
 - emergency health services for over 100,000 people
 - livelihood support for over 650,000 people and
 - vaccinations for over 200,000 livestock.
- The UK is also leading the way in providing support for the region, bolstering help for neighbouring countries such as Uganda (almost £50 million over the last 3 years) to cope with the influx of refugees from South Sudan.
- In 2016, the UK's support to Uganda has provided: food for 650,000 people including 45,000 children; shelter for 56,250 people; blankets, water containers and sanitary towels for 64,000 people; and vaccinated 210,000 children.
- The UK will not look the other way while people suffer: the Government of South Sudan must put an end to abuses and deliver long-lasting peace.
- The international community now needs to step up alongside Global Britain to stop famine spreading and help support stability in South Sudan and the region, which is firmly in our interests.
- It is first and foremost the responsibility of the country's leaders to alleviate the pressure on its people, and to stop obstructing the UN, as well as NGOs, who are delivering vital lifesaving aid to the South Sudanese people and ultimately create lasting peace and stability.

UK support to Kenya:

- We are responding early and working with the international community to prevent a repeat of the Horn of Africa crisis in 2010/11.
- Our support at an early stage has helped mitigate the impact of droughts, saving lives and reducing the need for costly and often late humanitarian appeals.
- We have provided 11,500 children under 5 with nutrition.
- The Hunger Safety Net Programme (HSNP) – supported by UK aid – aims to reduce poverty and hunger, and build economic resilience for the most vulnerable people in the 4 poorest arid and semi-arid land (ASAL) counties (Turkana, Mandera, Marsabit and Wajir). It covers an area equivalent to 91% of the UK and 60% of the beneficiaries are women.
- HSNP provides small regular cash transfers as an alternative to food aid to support around 600,000 people, empowering people to make decisions about what they need, cutting out the middle man and reducing waste. Payments are made to households and work out at around £3.33 per person per month, paid every 2 months.
- HSNP can also rapidly scale up to reach a further 1.5 million people by providing emergency cash transfers to prevent the effects of drought. To date, on the basis of satellite early warning data, HSNP has scaled up

support 11 times since 2015, including 3 times in response to the current drought.

- All payments are made electronically through biometric systems which are some of the most secure in the world, and mean British taxpayers can be sure that the help they provide goes directly to the less fortunate, not those trying to abuse the system.
- HSNP is now a flagship programme of the Government of Kenya, managed by the National Drought Management Authority (NDMA) as part of the wider National Safety Net Programme (NSNP). The Government now funds over a third (34%) of the programme, having started contributing in 2013. And the Government will be taking on increased costs in future.

UK support to Ethiopia:

- In 2017, a new drought is hitting Ethiopia hard. Over 13 million people are currently in need of food assistance; this figure is likely to rise.
- Across the country, 9.1 million people are without access to water, and 1.9 million need support to prevent their cattle dying. 3 million children and pregnant women are projected to be acutely malnourished by May. People urgently need access to clean water, food and healthcare.
- In response to the continuing drought, the UK has increased much needed support to Ethiopia by giving an extra £11.5 million to provide around 800,000 people with lifesaving clean water, basic food, and emergency nutrition to malnourished children. This will provide emergency nutrition treatment to 25,000 malnourished children, clean water for 100,000 people and will provide vaccination and treatment to 600,000 cattle.
- Ethiopia is hosts over 800,000 refugees, mainly from South Sudan, Somalia and Eritrea. New refugee arrivals from all 3 countries will continue to increase.
- The humanitarian situation is worsening. Forecasts for the upcoming spring rains are poor, and the lack of rainfall means there will continue to be humanitarian needs, particularly for water and food, throughout 2017.

Smarter use of natural resources can inject \$2 trillion into global economy by 2015 – UN

17 March 2017 – The United Nations has found that smarter and more efficient use of the world's natural resources today can yield an "environmental win-win" by injecting \$2 trillion into the global economy by 2050 while also offsetting the costs of ambitious climate change action.

Citing new research from the International Resource Panel in a news release

today, Erik Solheim, Head the UN Environment Programme (UNEP), called it “an environmental win-win.”

The global population, which is set to grow by 28 per cent, is predicted to use 71 per cent more resources per capita by 2050. Without urgent steps to increase efficiency, the global use of metals, biomass, minerals – such as sand – and other materials will increase from 85 to 186 billion tonnes per year by 2050.

The report, “Resource Efficiency: Potential and Economic Implications,” which was commissioned in 2015 and released in Berlin at the G20 meeting, found that while investment in ambitious climate action would cause a 3.7 per cent fall in per capita gross world product by 2050, more sustainable use of materials and energy would not only cover the cost of keeping global warming below 2 degrees Celsius, but also add an extra \$2 trillion to the global economy by 2050.

“By making better use of our planet’s natural gifts, we will inject more money into the economy to create jobs and improve livelihoods,” Mr. Solheim stressed. “At the same time we will create the necessary funds to finance ambitious climate action,” he added.



Executive Director of the United Nations Environment Programme (UNEP) Erik Solheim. UN Photo/JC McIlwaine

The report analyzed four paths that countries could take over the next three decades, ranging from ‘business as usual’ to a scenario where they adopt both ambitious climate policies and improve resource efficiency.

For example, between 2005 and 2010, a programme in the United Kingdom recycled or reused seven million tonnes of trash destined for the landfill. This move saved six million tonnes of carbon dioxide emissions, close to 10 million tonnes of virgin materials and 10 million tonnes of water. It also increased business sales by £176 million, reduced business costs by £156 million and created 8,700 jobs.

Although other key findings point to uneven economic gains of resource efficiency and slower resource extractions, which would reduce revenues and affect jobs in some industries – such as mining and quarrying – countries still stand to gain more by implementing compensation and transfer policies to ease the transition to more efficient practices, than by continuing to support inefficient activities, according to the report.

In addition to economic benefits, the analysis illustrates that resource efficiency and climate action would reduce global resource use by around 28 per cent in 2050 compared to current trends.

For G7 countries, resource efficiency, coupled with ambitious climate action, would increase Gross Domestic Product by \$600 billion in 2050 (\$600 per person, or 1 per cent).

The International Resource Panel is a group of experts in natural resource management hosted by UN Environment.

[Press release: Planned roadworks in and around the M25: weekly summary for Monday 20 March to Sunday 26 March 2017](#)

The following summary of planned new and ongoing road improvements over the coming week is correct as of 17 March 2017 but could be subject to change due to weather conditions or unforeseen circumstances. All our improvement work is carried out with the aim of causing as little disruption as possible.

M1 junction 2 Mill Hill, Greater London: bridge investigation

Work to maintain safety by carrying out bridge investigations will start this week. The northbound entry slip road will be closed overnight, between 10pm and 5am, from Monday 20 March for 5 nights. Work on Friday will start at 11pm. A clearly signed diversion will be in place via the A1 and A41 to M1 junction 4.

M1 junction 6a (M25), Hertfordshire: electrical repair

Work to maintain safety by carrying out electrical repairs continues this week. The southbound link roads to the M25 in both directions will be closed overnight, between 10pm and 5am, on Monday 20 March. A clearly signed diversion will be in place via the M1 junction 6, A405 eastbound and M25 junction 21a.

M3 junctions 2 (M25) to 4a Farnborough, Hampshire: smart motorway improvement

Work to reduce congestion and improve journey times continues this week between junctions 2 and 4a with narrow lanes and a 50mph speed limit in place on both carriageways, with a free recovery service operating 24 hours a day.

The northbound carriageway between junctions 3 and 2 will be closed overnight, between 8pm and 5.30am, from Monday 20 March for 5 nights. Work on Saturday will finish at 7am. A clearly signed diversion will be in place via

the A322, A30, M25 junction 13 and M25 junction 12.

The southbound carriageway between junctions 4 and 5 will be closed overnight, between 8pm and 5.30am, from Monday 20 March for 5 nights. Work on Saturday will finish at 7am. A clearly signed diversion will be in place via M3 junction 4, A331, A30 and A287 to M3 junction 5.

The southbound carriageway between junctions 2 and 3 will be closed overnight, between 8pm and 5.30am, from Wednesday 22 March for 3 nights. Work on Saturday will finish at 7am. A clearly signed diversion will be in place via M25 junction 13, A30, A322 to M3 junction 3.

The northbound exit slip road at junction 4a will be closed overnight, between 8pm and 5.30am, from Monday 20 March for 4 nights. A clearly signed diversion will be in place via M3 junction 4, A331 and the M3 southbound to junction 4a.

The northbound carriageway between junctions 4a and 4 will be closed overnight, between 8pm and 7am, on Saturday 25 March 2017. A clearly signed diversion will be in place via the A327, A30 and A331 to M3 junction 4.

The scheme is due to be completed in June 2017. For further information [visit the scheme website.](#)

M4 junctions 3 (A312) to 1 Chiswick, West London: electrical installation

Work to improve safety by carrying out electrical installation continues this week. The carriageway in both directions, including Heston Services and junction 2, will be closed overnight, between midnight and 5.30am, from Monday 20 March for 5 nights. Work on Saturday morning will finish at 6am. A clearly signed diversion will be in place via the A312 and A4.

M4 junction 4b (M25), Greater London: carriageway survey

Work to maintain safety by carrying out carriageway surveys will start this week. The dedicated link roads from the M4 in both directions to the M25 anti-clockwise will be closed overnight, between 10.30pm and 5am, on Sunday 26 March. A clearly signed diversion will be in place via the M25 clockwise to M40 junction 1 and return.

M25 junction 2 (A2), Kent: resurfacing

Work to improve journeys by carrying out resurfacing will start this week. The dedicated link road from the M25 anti-clockwise to the A2 westbound will be closed overnight, between 10pm and 5am, on Sunday 26 March. A clearly signed diversion will be in place via the junction 2 roundabout.

M25 junction 10 (A3), Surrey: communications

Work to maintain safety by carrying out communications work will start this week. The anti-clockwise carriageway between the slip roads will be closed overnight, between 10pm and 5am, on Thursday 23 March. A clearly signed diversion will be in place via the exit and entry slip roads.

M25 junction 10 (A3), Surrey: carriageway repairs

Work to improve journeys by carrying out carriageway repairs will start this week. The anti-clockwise exit and entry slip roads will be closed overnight, between 10pm and 5am, from Monday 20 March for 3 nights. A clearly signed diversion will be in place for the exit slip road via junction 9 and return. A clearly signed diversion will be in place for the entry slip road via junction 11 and return.

The anti-clockwise carriageway will be closed overnight, between 10pm and 5.30am, from Thursday 23 March for 2 nights. Work on Friday will start at 11pm. A clearly signed diversion will be in place via the exit and entry slip roads.

M25 junctions 10 (A3) to 11 Chertsey, Surrey: bridge joint replacement

Work to improve journeys by carrying out bridge joint replacement on the structure that carries the M25 over the River Wey and the South West Trains railway line continues this week. The clockwise carriageway and junction 10 entry slip road will be closed overnight, between 9pm and 8am, on Saturday 25 March. A clearly signed diversion will be in place via the A3, A245, B374 and A317 to junction 11.

M25 junction 12 (M3), Surrey: smart motorway improvement

Work to improve journeys by carrying out smart motorway improvement continues this week. The dedicated link roads from the M25 in both directions to the M3 southbound will be closed overnight, between 8pm and 5.30am, from Wednesday 22 March for 3 nights. On Saturday work will finish at 7am. A clearly signed diversion will be in place via M25 junction 13, A30, A322 to M3 junction 3.

M25 junction 14 and Terminal 5 spur road, Heathrow, Greater London: inspection

Work to maintain safety by carrying out inspections continues this week. The anti-clockwise exit slip road will be closed overnight, between 10pm and 5am, on Sunday 26 March. A clearly signed diversion will be in place via the M25 clockwise to junction 13 and return.

M25 junctions 20 Hemel Hempstead to 21a St Albans, Hertfordshire: electrical repair

Work to maintain safety by carrying out electrical repairs continues this week. The clockwise carriageway will be closed overnight, between 10pm and 5am, on Wednesday 22 March. A clearly signed diversion will be in place via the M1 northbound to junction 8, M1 southbound to junction 6, A405 eastbound to M25 junction 21a.

M25 junctions 30 Thurrock to 31 Lakeside, Essex: street lighting

Work to maintain safety by carrying out street lighting maintenance continues this week. The clockwise carriageway will be closed overnight, between 10pm and 5.30am, from Monday 20 March for 2 nights. A clearly signed diversion will be in place via the dedicated link road between junctions 30 and 31.

The dedicated link roads between junction 30 and 31 in both directions will be closed overnight, between 10pm and 5.30am, on Wednesday 22 March. A clearly signed diversion will be in place via the A13, Wennington Interchange and the A1306 and vice versa.

A1(M) junctions 3 Hatfield to 4 Hertford, Hertfordshire: tunnel maintenance

Work to maintain tunnel safety by carrying out repairs will start this week. The northbound carriageway will be closed overnight, between 10pm and 5am, on Saturday 25 March. A clearly signed diversion will be in place via A1001.

A282 junction 1a Swanscombe, Kent: tunnel maintenance

Work to maintain safety by carrying out tunnel maintenance will continue this week. The northbound entry slip road will be closed overnight, between 9pm and 5.30am, from Monday 20 March for 4 nights and on Saturday 25 March. A clearly signed diversion will be in place via the A282 southbound to junction 1b and return.

A282 (M25) Dartford – Thurrock Crossing: routine maintenance

Work to improve journeys by carrying out routine maintenance at the Dartford Crossing continues this week. The following closures will be in place overnight, between 9pm and 5.30am, with fully signed diversions in place during the northbound east tunnel closures for oversized vehicles.

- Monday 20 March: northbound west tunnel
- Tuesday 21 March: northbound west tunnel

- Wednesday 22 March: northbound west tunnel
- Thursday 23 March: northbound west tunnel
- Friday 24 March: northbound east tunnel
- Saturday 25 March: northbound west tunnel
- Sunday 26 March: northbound east tunnel

General enquiries

Members of the public should contact the Highways England customer contact centre on 0300 123 5000.

Media enquiries

Journalists should contact the Highways England press office on 0844 693 1448 and use the menu to speak to the most appropriate press officer.

[Press release: Works starts on M11 in Essex to restrict lorry daytime overtaking](#)

The work, which will include installing road signs along a section of the M11 in both directions between junctions 8 for Bishop's Stortford and Stansted airport and 9 for the A11, will make journeys safer and more reliable, and improve journey times.

To minimise disruption, the work will be carried out overnight between 10pm and 6am Monday to Friday only, with the hard shoulder and lane 1 closed to keep drivers and road workers safe. It is planned for completion by the end March.

Once the signs are in place, vehicles weighing more than 7.5 tonnes and travelling through the sections of the M11 where signage is displayed will not be allowed to drive in lane 2 of the two-lane carriageway between 7am and 7pm.

Highways England project manager Steve Cox said:

We are committed to getting the best use out of the road network, making journeys more reliable and improve safety. Our research, based on a trial we carried out between April 2010 and September 2011, has shown us that implementing lorry overtaking restrictions on uphill sections of the M11 between junctions 8 and 9 during the daytime would be beneficial to road users, reducing congestion and improving journey times.

Highways England provides up-to-date traffic information [via its website](#), local and national radio travel bulletins, electronic road signs and mobile platforms.

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