

Pollution and Poverty- Breaking the link

New evidence linking pollution and poverty

This new research from Friends of the Earth reveals the stark links between deprivation and pollution.

We took the latest pollution data from the Environment Agency - covering a range of chemicals emitted to air, water and land by large factories (those regulated under Integrated Pollution Control). We then compared the location of these factories and the levels of air emissions with the Government's Index of Multiple Deprivation - which ranks all 8,414 local authority wards in England in several categories (health, education, income, employment, housing and access to services). The comparison reveals that deprived communities bear the brunt of factory pollution. This study focussed on emissions to air of chemicals recognised as being carcinogenic (cancer causing) (see Annex 3).

The results show that factories are found predominantly in more deprived wards (see graph 1). Also, the worst of the pollution is found overwhelmingly in the most deprived wards (see graph 2). Of the 11,400 tonnes of carcinogenic chemicals emitted to air in England in 1999:

- 66% of carcinogen emissions are in the most deprived 10% of wards
- 82% of carcinogen emissions are in the most deprived 20% of wards
- Only 8% of carcinogen emissions are in the *least* deprived 50% of wards

For lists of wards and carcinogen emissions in the most deprived 10% and 20% of wards, please see the Annexes.

The case for action

Everyone should have the right to live in a clean, safe environment. There is no place in a modern society for factories spewing out thousands of tonnes of carcinogenic chemicals. This alone should be cause for strong action to reduce pollution from factories.

But the fact that this pollution is also in the most deprived areas of the country makes action even more vital. It is morally wrong that on top of all the other problems that poorer communities face, they should have to bear the burden of factory pollution as well. Environmental problems are clearly a part of the social exclusion,

inequality and deprivation that the Government has promised to tackle.

The Government must act on these promises, improving people's health and quality of life, and reducing social exclusion by reducing pollution in people's communities.

Recommendations for Government Action:

1 Cut Factory Pollution by 80% by 2005.

Friends of the Earth is calling for an 80% cut in factory pollution by 2005, and our new research adds extra weight to these calls. The Environment Agency should launch a campaign to deliver these reductions, with a priority to clean up the dirtiest factories. An 80% reduction in the pollution from just the 10 factories emitting the most carcinogens, would give a reduction of 57% in the total amount of carcinogen emissions for the whole of England.

2 The Social Exclusion Unit should include environmental exclusion as a key part of its next programme of work.

Factory pollution is not the only environmental problem which hits the poorest hardest. Traffic pollution is also worse in more deprived areas. The distribution of environmental impacts, and its causes, is an under-explored issue - as acknowledged by the Environment Minister (1). The Social Exclusion Unit has noted these issues in its work, it is currently undertaking "*scoping of possible topics for a future work programme*". It should research the causes and extent of environmental exclusion in this work programme.

Key questions for this programme include:

- What is the pattern of distribution of environmental impacts? Which people suffer?
- What are the causes of the pattern of distribution of environmental impacts?
- What is needed to address this situation?

3 Draft new statutory guidelines for regeneration strategies to ensure that only quality economic growth - that does not compromise people's health or the environment - is delivered.

The most deprived communities suffer from multiple problems. Regeneration policies should look at jobs, economic growth, environmental quality and community needs as connected issues, not as separate unrelated problems. To break the link between poverty and pollution, regeneration strategies must not repeat the mistake of aiming for economic growth irrespective of its effects on people's health and environmental quality. Yet, despite the Government stating that "*quality of growth matters; not just quantity*"(2), the success of economic policies including regeneration is measured primarily in terms of quantity. New and clear statutory guidelines for regeneration strategies could correct this.

These guidelines should explicitly address the need to reduce toxic pollution. They should be applied to all regeneration strategies including the Regional Economic Strategies and strategies financed by European structural funds. The guidelines should ensure that any support given to industries that emit toxic pollution, such as developing industry clusters in regional economic strategies, is only on condition that the total emissions from the industry are reduced significantly year-on-year. Reducing toxic pollution will have the added benefit of making regeneration areas more attractive to employers, and so boost job creation opportunities.

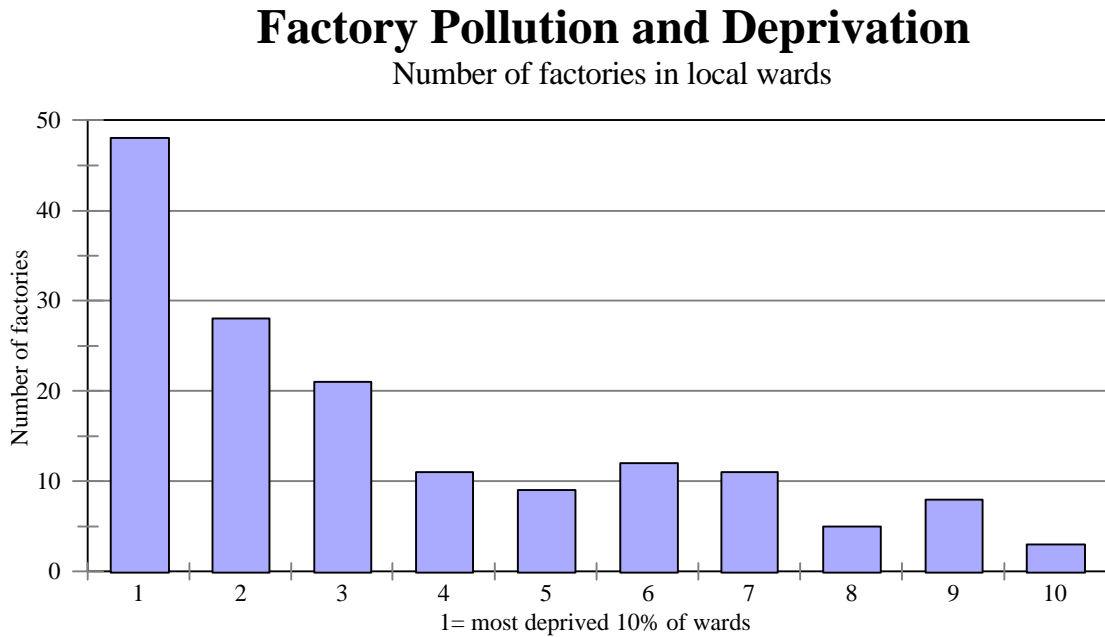
4 The Government should introduce an indicator of environmental deprivation in the next update of the Index of Multiple Deprivation.

The Department of the Environment, Transport and the Regions (DETR) wanted to include an environmental index in the 2000 Index of Multiple Deprivation. However, they said that they did not have enough quality data "*...that could be applied at small area levels.*"

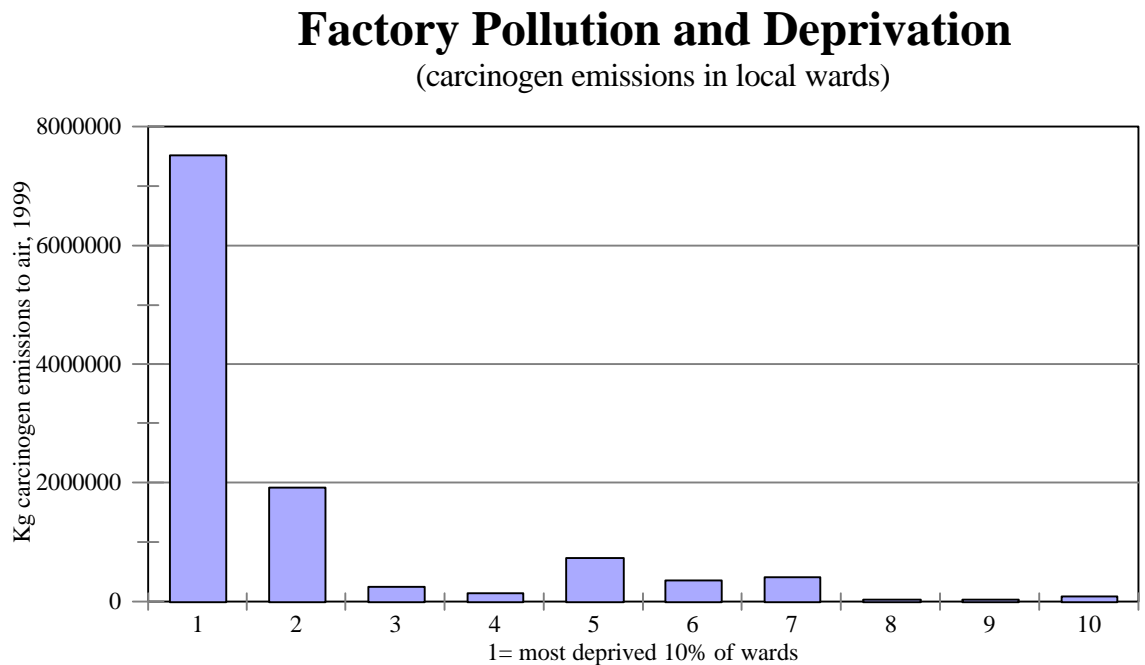
The DETR should use the Environment Agency's factory data as the basis for an initial environmental index. This can be developed to include air pollution from other sources (such as traffic).

Pollution and Poverty Results:

Graph 1 Factory numbers against deprivation:



Graph 2: Factory emissions against deprivation:



[Note: the 8414 wards were broken into 10 parts - on the graph, “1” is the most deprived 10% of wards - wards 1 to 841; 2 is the next most deprived 10% - wards 842-1682, etc. The pollution data covered all factories in England emitting more than 1,000 kilogrammes of carcinogens into the air in 1999. There are 156 of these factories.]

References

(1) “*There has been far too little research in this country into the social effects of environmental degradation*”. Michael Meacher, 1999. In Boardman, B, et al. *Equity and the Environment*. London, Catalyst Trust.

(2) HM Treasury 1997 Statement of Intent on Environmental Taxation

Further Information

For information about polluting factories in your area, and for further details of this study, see FOE’s factory watch website: www.foe.co.uk/factorywatch

The analysis in this briefing expands on a pilot 1999 study - also see:

www.foe.co.uk/factorywatch/pollution_and_poverty/index.html

This research is part of Friends of the Earth’s work on “Environmental Justice” - ensuring that everyone in the UK can live in a healthy environment, without compromising the health or quality of life of people in other countries or generations. See: www.foe.co.uk/campaigns/sustainable_development/research_progs/env_just_prog.html

Friends of the Earth Scotland also campaign on Environmental Justice - see:

www.foe-scotland.org.uk/nation/ej1.html

Other Friends of the Earth International member groups also campaign on environmental justice issues, for example FOE Ecuador. See:

cosmovisiones.com/DeudaEcologica/campa.html

Other resources on Environmental Justice in the UK include:

Environmental Justice: From the Margins to the mainstream - Julian Agyeman, Nov 2000.

www.tcpa.org.uk/Environmental_Justice.pdf

Environmental Justice in a divided Society - proceedings from a conference at Goldsmith’s College, February 2000:

www.goldsmiths.ac.uk/academic/an/environmental2.html

In 2001, a briefing on environmental justice will be published through the Economic and Social Research Council’s Global Environmental Change Programme.

Also in 2001, the Joseph Rowntree Foundation will also be publishing research on “Environmental concerns of disadvantaged groups”.

The following website contains a good summary of Environmental Justice work in the USA:

www.ejrc.cau.edu

Annex 1: WARDS in England with very high Index of Multiple Deprivation (in the highest 10 percent of wards) and with industrial emissions of over 1 tonne of carcinogens (1999)

Ward	MP, constituency, majority	Companies, carcinogens released (tonnes)	Ward total:
MERSEY	Derek Twigg: Halton - Labour maj: 23650	ICI Ltd, WA7 4JE 3325 European Vinyls Corporation, WA7 4JE 82.5	3407.5 tonnes
STANLOW	Andrew Miller: Ellesmere Port and Neston - Labour maj: 16036	Associated Octel Co Ltd, L65 4HF 2234.9 Shell UK Ltd, L65 4HB 169.1	2404.0
DORMANSTOWN	Marjorie Mowlam Redcar - Labour maj: 21664	ICI Ltd, TS90 8JA 274.8 Huntsman ICI Petrochemicals, TS90 8JA 209 Dupont Sabanci Polyester, TS90 8JW 131.1 Union Carbide Ltd, TS90 8JA 99.9 Corus UK Ltd, TS10 5QW 61.3 Huntsman ICI Polyurethanes, TS90 8JA 32 Dupont (UK) Ltd, TS6 8JJ 2.7	810.9
CHARLTONS	Frank Cook Stockton North - Labour maj: 21357	Huntsman ICI Petrochemicals, TS2 1TT 213 BASF PLC, TS2 1TX 181.1 Fine Organics Ltd, TS2 1UB 103 Phillips Imperial Petroleum , TS2 1TT 25 Koppers UK LTD, TS2 1SD 2.5	524.7
BUCKLOW (Trafford)	Beverley Hughes: Stretford and Urmston -Labour maj: 13640	Montell UK Limited, M31 4AJ 70	70
LYNN NORTH (Kings Lynn)	George Turner: Norfolk North West - Labour maj: 1339	Porvair LTD, PE30 2HS 68.8	68.8
SANDWITH	Jack Cunningham: Copeland - Labour maj: 11944	Rhodia Consumer Specialties Ltd, CA28 9QQ 67.1	67.1

HALTON	Derek Twigg: Halton - Labour maj: 23650	Atofina UK, WA8 0NY 4.1 Aventis Cropscience UK Limited, WA8 0RN 12 Saffil Ltd, WA8 0RY 8.7 Bush Boake Allen Ltd, WA8 0RF 15.3	40.2
OSMASTON (Derby City)	Margaret Beckett: Derby South - Labour maj: 16106)	Rolls Royce, DE24 8BJ 29.3	29.3
HERRINGTHORPE	Denis MacShane Rotherham - Labour maj: 21469)	Corus UK LTD, S60 1DW 15	15
OLDBURY	Adrian Bailey: West Bromwich West - Labour maj: - 15423	Bip Ltd, B69 4PG 10.1 Rhodia Consumer Specialties Ltd, B69 4LN 1	11.1
HOLLINGTON (Hastings)	Michael Foster: Hastings and Rye - Labour maj: 2560	Deutsch Ltd, TN38 9RF 9.1	9.1
CENTRAL	Rosie Winterton: Doncaster Central - Labour maj: 17856	Pegler Ltd, DN4 8DF 7.7	7.7
DARNALL	Clive Betts: Sheffield Attercliffe - Labour maj: 21818	Avesta Sheffield Ltd, S9 1TR 6.4	6.4
PLECK	Bruce George: Walsall South - Labour maj: 11312	IMI Refiners Ltd, WS2 9SJ 5.3	5.3
LADYWOOD	Clare Short: Birmingham Ladywood - Labour maj: 23082	Cookson Precious Metals Ltd, B1 3NZ 3.2	3.2
WESTON-SUPER- MARE SOUTH	Brian Cotter: Weston-Super-Mare - Liberal Democrats maj: 1274	Praxair Surface Technologies, BS24 9AX 3.2	3.2
GRANGE PARK	Gerry Bermingham: St Helens South - Labour maj: 23739	Owens Corning Alcopor UK Ltd, WA10 3NS 2.8	2.8

RAMPTON	Joe Ashton: Bassetlaw - Labour maj: 17460	Powergen, DN22 0EU	2.8	2.8
DEIGHTON	Barry Sheerman: Huddersfield - Lab Co-op maj: 15848	Astra Zeneca UK Ltd, HD2 1FF Holliday Dyes and Chemicals Ltd, HD2 1UH	1.0 1.6	2.6
HARTFORD & WEST CRAMLINGTON	Ronald Campbell: Blyth Valley - Labour maj: 17736	BASF (Cramlington Division) NE23 9JL	2.5	2.5
HARPURHEY	Graham Stringer: Manchester Blackley - Labour maj: 19588	BBA Friction Mintex Don Ltd, M9 5SX	2.2	2.2
RIBBLETON	Mark Hendrick: Preston - Labour maj: 18680	Cleanaway Ltd, PR2 5NQ	2.2	2.2
BILSTON EAST	Dennis Turner: Wolverhampton South East - Lab Co-op maj: 15182	Mueller Europe Limited, WV14 7DS	1.7	1.7
OLDINGTON AND FOLEY PARK	David Lock : Wyre Forest - Labour maj: 6946	British Sugar PLC, DY11 7QA	1.6	1.6
GREETS GREEN AND LYNG	Peter Snape: West Bromwich East - Labour maj: 13584	Sibelco Minerals and Chemicals, B70 8JL J B R Recovery Ltd, B70 9BS	1.2 .4	1.6
WILLENHALL SOUTH	David Winnick: Walsall North - Labour maj: 12588	Brookside Metal Co Ltd, WV13 2QE	1.3	1.3

NB: company names as at 1999

Annex 2: WARDS in England with high Index of Multiple Deprivation (in the highest 10 - 20 percent of wards) and with industrial emissions of over 1 tonne of carcinogens (1999)

Ward (County)	MP, constituency, majority	Companies, carcinogens released (tonnes)	Ward total:
ULVERSTON EAST	John Hutton: Barrow and Furness - Labour maj: 14497	Glaxo, LA12 9DR 847.7	847.7
SOMERCOTES	Judy Mallaber: Amber Valley - Labour maj: 11613	Recticel Manufacturing, DE55 4RD 298.5	298.5
BULK	Hilton Dawson: Lancaster and Wyre - Labour maj: 1295	Acordis, LA1 3PE 295.4	295.4
MIDDLETON NORTH (Rochdale)	Jim Dobbin: Heywood and Middleton - Lab Co-op maj:17542	Vitafoam Ltd, M24 2DB 205	205
ALVASTON	Margaret Beckett: Derby South - Labour maj: 16106	Acordis, DE21 7BP 5.3 Akzo Nobel Chemicals Ltd, DE21 7ZG 106.6	111.9
ARMLEY	John Battle: Leeds West - Labour maj: 19771	Denso Marston Ltd, LS12 2JL 55.8	55.8
THEDDLETHORPE ST HELEN (East Lindsey)	Peter Tapsell: Louth and Horncastle - Conservative maj: 6900	Conoco Ltd, LN12 1NQ 42	42
FRODINGHAM NORTH	Elliott Morley: Scunthorpe - Labour maj: 14173	Corus, DN16 1BP 34.6	34.6
CROOKHALL	Hilary Armstrong: Durham North West - Labour maj: 24754	Thomas Swan and Co Ltd, DH8 7ND 19.2	19.2
BACTON - 15083	David Prior: Norfolk North - Conservative maj: 1293	Shell UK Ltd, NR12 0JE 14	14

WEDNESBURY NORTH	Adrian Bailey: West Bromwich West - Labour maj: - 15423	Johnson Controls Automotive WS10 7DD	13	13
WYKE	Gerry Sutcliffe: Bradford South - Labour maj: 12936	Ciba Specialty Chemicals Ltd, BD12 0JZ	10.1	10.1
CLEMENTS (St Edmundsbury)	Richard Spring: Suffolk West - Conservative maj: 1867	Borden Chemicals, CB9 8PH International Flavours and Fragrances, CB9 8LG	3.4 2.9	6.4
KNOTTINGLEY	Yvette Cooper: Pontefract and Castleford - Labour maj: 25725	Edison First Power Limited, WF11 8SQ	3.0	3.0
WATCHET	Tom King: Bridgwater - Conservative maj: 1796	St Regis Paper Co : UK Ltd, TA23 0AY	2.6	2.6
LONGBRIDGE	Richard Burden: Birmingham Northfield - Labour maj: 11443	Rover Group Ltd, B31 2TB	2.0	2.0
HEIGHAM	Charles Clarke: Norwich South - Labour maj: 14239	Rhone-Poulenc Agriculture Limited, NR6 5AP	1.9	1.9
CASTLEFORD GLASSHOUGHTON	Yvette Cooper: Pontefract and Castleford, Labour maj: 25725	Hickson and Welch Ltd, WF10 2JT	1.8	1.8
NEVILLE	Tony Blair: Sedgefield - Labour maj: 25143	Great Lakes Manufacturing, DL5 6HA Perstorp Chemitec Ltd, DL5 6EA	.99 .6	1.6
WHITWELL	Dennis Skinner: Bolsover - Labour maj: 27149	Lafarge Redland Aggregates Limited, S80 3LJ	1.4	1.4
TINTAGEL	Paul Tyler: Cornwall North - Liberal Democrats maj: 13933	Maybridge Chemical Co, PL34 0HW	1.0	1.0

NB: company names as at 1999

Annex 3: Substances considered as “recognised carcinogens” and featuring in the emissions above

ACETALDEHYDE (ETHANAL)
ACRYLONITRILE
ANILINE
ARSENIC
ASBESTOS (SUSPENDED PARTICLES & FIBRES)
BENZENE
BENZO(A)PYRENE
BENZYL CHLORIDE(A-CHLOROTOLUENE)
BERYLLIUM
BROMOETHYLENE (VINYL BROMIDE)
1,3-BUTADIENE
CADMIUM
CARBON TETRACHLORIDE
1-CHLORO-2,3-EPOXYPROPANE (EPICHLOROHYDRIN)
CHLOROETHANE (ETHYL CHLORIDE)
CHLOROETHENE (CHLOROETHYLENE, VINYL CHLORIDE)
CHLOROFORM (TRICHLOROMETHANE)
1,2-DIBROMOETHANE
1,4-DICHLOROBENZENE
1,2-DICHLOROETHANE (ETHYLENE DICHLORIDE)
DICHLOROMETHANE (METHYLENE CHLORIDE OR DICHLORIDE)
DIETHYL SULPHATE
DIMETHYL SULPHATE
1,4 DIOXANE
DIOXINS (REPORTED AS TEQ)
ETHYLENE OXIDE
FORMALDEHYDE
HYDRAZINE
LEAD
LEAD - PARTICULATE (+ITS COMPOUNDS)
LEAD COMPOUNDS
4,4'-METHYLENEBIS[2-CHLOROANILINE]
NICKEL
NITROBENZENE
NITROMETHANE
PROPYLENE OXIDE (METHYLOXIRANE)
1,1,2,2-TETRACHLOROETHANE (TETRACHLORETHANE)
TETRACHLOROETHENE(TETRACHLORETHYLENE, PERCHLOROETHYLENE)
TRICHLOROETHYLENE
TRICHLOROTOLUENE

This study has used the list of “recognised carcinogens” developed under California's “Proposition 65” law, which uses the hazard identification efforts of various authoritative bodies as its primary reference. Two independent committees of scientists and health professionals consider the available evidence, including that of authoritative organizations such as WHO’s International Agency for Research on Cancer. A substantial weight of toxicological or epidemiological evidence supports the decision to list a chemical as a recognized health hazard under Proposition 65.

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