



# Military R&D 85 Times Larger Than Renewable Energy R&D

by Dr. Stuart Parkinson

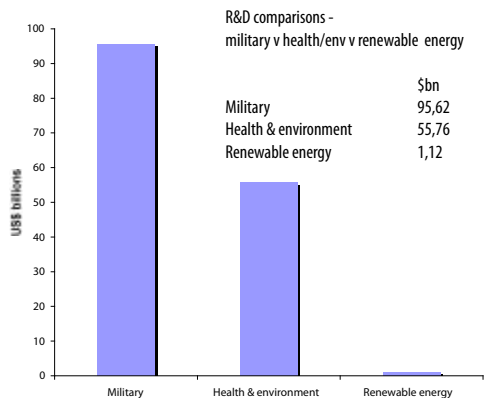
**Stuart Parkinson outlines new research from UK organisation, Scientists for Global Responsibility (SGR). This includes statistics from across the industrialised world showing a massive imbalance between government R&D spending for military purposes and that for social and environmental purposes.**

Military influence over science and technology is expanding rapidly. Leading this expansion is the US government whose spending on military research and development (R&D) reached a massive \$78 billion in 2007, a 57% increase since 2001<sup>1</sup>. In the UK – third in the world rankings in terms of government spending on military R&D – the changes have been more qualitative, with two new national programmes rolled out in the last two years: the Defence Industrial Strategy and the Defence Technology Strategy. The latter in particular marks an expanded effort to involve universities more deeply in military R&D.

The increasing military involvement in R&D continues to support a narrow weapons-based security agenda. This is despite major shortcomings in this approach being apparent – not least in relation to the so-called ‘War on Terror’. A continued emphasis on military technology and war-fighting helps to marginalise a broader approach to security. Such an approach would give much greater priority to supporting conflict prevention by helping to address the roots of conflict. For example, R&D that aims to help tackle poverty, climate change and ill-health – and thus help to provide basic security for human populations – is under-funded compared with military R&D. Latest figures show that in 2006, governments in the wealthier,

industrialised countries spent a total of \$96 billion on military R&D, but only \$56 billion on R&D for health and environmental protection<sup>2</sup>, and only \$1.1 billion on R&D for renewable energy<sup>3</sup> – see Figure. These statistics have been compiled by the Organisation for Economic Co-operation and Development (OECD) and the International Energy Agency.

## Comparison of government R&D spending in industrialised countries, 2006



Figures are in US\$ (purchasing power parity). Those for military and health/ environment R&D are for OECD (most industrialised) countries. Figures for renewable energy are for IEA countries (OECD minus four minor countries). Further details and references are given in the text. Credit: SGR

The USA is responsible for the vast majority of the government spending on military R&D – more than 80% of that spent across the industrialised world<sup>4</sup>. The other major

spenders – a long way behind – are Russia, France, the UK and China<sup>5</sup>. France and the UK follow the USA in allocating much higher levels of government R&D funds to the military than to health & environmental protection. Indeed, the UK government spends more than 25 times as much on military R&D as on R&D to support international development<sup>6</sup>. Comparable figures for Russia and China are not available.

Given urgent problems such as climate change and global poverty, and the key role that science and technology can play in helping to tackle such problems, there is a compelling case for a major shift in scientific and engineering resources away from the military and towards areas that directly support social justice and environmental protection.

These arguments have been discussed in depth in two publications by SGR: *Soldiers in the laboratory*<sup>7</sup> (published in 2005) and the update, *More soldiers in the laboratory*<sup>8</sup> (2007). A third publication, *Behind closed doors*<sup>9</sup> – which examines in detail the effect of the military on universities – will be published later this year.

These publications are part of a programme of research and advocacy activities run by SGR on military science and technology. Other activities include writing articles in the technical and peace press, giving lectures and presentations, and advocating reform at a political level. Recent articles have been published in *The Economics of Peace and Security Journal* and the *Bulletin of Atomic Scientists*. We have given lectures at seminars in the European Parliament and the UK Parliament. We have also provided material or support to a wide range of organisations and individuals, including The Royal Society and Campaign Against Arms Trade.

**Dr Stuart Parkinson** is Executive Director of Scientists for Global Responsibility. For more information on this

work, see:

<http://www.sgr.org.uk/ArmsControl/MilitaryInfluence.html>

## References

1. AAAS (2007). Guide to R&D funding data – historical data. Historical table 2. <http://www.aaas.org/spp/rd/hist08p2.pdf>
2. OECD (2007). Main science and technology indicators 2007. Tables 59, 60 & 62b. OECD, Paris. <http://www.oecd.org/>
3. International Energy Agency (IEA) (2007). IEA online energy database. <http://www.iea.org/Textbase/stats/rd.asp>
4. As note [2]
5. As note [2]. See also: House of Commons Defence Committee (2007). The work of the Defence Science and Technology Laboratory and the funding of defence research. Eighth Report of Session 2006–07. p36–37. The Stationery Office, London. [http://www.parliament.uk/parliamentary\\_committees/defence\\_committee.cfm](http://www.parliament.uk/parliamentary_committees/defence_committee.cfm)
6. Langley C., Parkinson S., Webber P. (2007). More soldiers in the laboratory: the militarisation of science and technology – an update. Scientists for Global Responsibility. <http://www.sgr.org.uk/ArmsControl/MilitaryInfluence.html>
7. Langley C. (2005). *Soldiers in the laboratory: military involvement in science and technology – and some alternatives*. Scientists for Global Responsibility. <http://www.sgr.org.uk/ArmsControl/MilitaryInfluence.html>
8. As note [6].
9. Langley C., Parkinson S., Webber P. (forthcoming). *Behind closed doors: military and commercial pressures and the compromised university*. Scientists for Global Responsibility.

### Event Note

Stuart Parkinson will be speaking on military involvement in science and technology at a side event at the NPT PrepCom, Geneva, on 5<sup>th</sup> May. **Venue:** United Nations office, NGO room, 10:00 a.m.

SGR has also provided material and support to “The Nuclear Dilemma” exhibition which is showing at the International Museum of the Red Cross and Red Crescent (MICR) in Geneva during the PrepCom.