

## **An assessment of the economic and political feasibility of a global R&D treaty**

*Andrew Farlow, Saïd Business School, University of Oxford, United Kingdom*

This submission evaluates the viability and potential effectiveness of a Medical Research and Development Treaty (MRDT), a variation of which is currently under discussion at the WHO's Intergovernmental Working Group (IGWG) on Public Health, Innovation and Intellectual Property.

The arguments below are expanded in the working paper “**A Global Medical Research and Development Treaty: An answer to global health needs?**” available for download at [http://www.policynetwork.net/uploaded/pdf/Global\\_Medical\\_Research\\_web.pdf](http://www.policynetwork.net/uploaded/pdf/Global_Medical_Research_web.pdf)

### **Implementation issues**

The supporting literature for the MRDT takes an overly simplistic approach to the interface of the different components of the R&D process, with no explanation of how different modes of R&D and funding of R&D will coexist, of how the production side of the proposal will work, of how non patent based R&D will be efficiently exploited, and of how complex underlying IP issues will be handled.

No explanation is given for how the transition will be made from the current R&D funding ‘system’ to the new MRDT ‘system’, in such a way that current investors – both private and public – do not have their work unfairly expropriated. Unfortunately, this suggests that the MRDT will result in many perverse outcomes and unintended consequences in these areas.

The MRDT hinges around a credit trading mechanism, with signatory countries’ credits earned from spending on a wide variety of types of R&D. This thinking is borrowed from the Kyoto Protocol which deals with the very different problem of environmental CO2 emissions trading – but the MRDT ignores all the differences between R&D and CO2 emissions, and all of the problems experienced by Kyoto. In particular, the credit trading mechanism is very unlikely to work given the likelihood of multiple non-binding constraints, difficult measurement and valuation problems, and the inability to formulate a workable way to enforce outcomes.

Given that the ‘market’ for types of innovation and the efficiency with which R&D is done under the MRDT both rely on the efficiency of this credit trading mechanism, this is somewhat unfortunate.

There is also a range of extremely challenging enforcement problems. The data required to discipline errant signatories would be too poor to be useful, and rent-seeking and other forms of inefficient gaming of the system would be impossible to police. It is not clear what credible and enforceable punishments there could be of those deviating from the supposed self-enforcing solution upon which the MRDT relies. The suggestion of using TRIPS and TRIPS-plus as 'punishment' is found to be somewhat impractical. Is it wise to encourage poor countries to support a radical overhaul of the R&D system, for an outcome that is highly unlikely to be enforceable anyway?

### **R&D weighting issues**

There are a range of problems in setting weights on countries' spending obligations as visualised in the MRDT. It is hard to visualise a set of permanently fixed weights that is optimal; but a flexible set of weight requires a centralised bureaucracy. A set of weights that is simply proportional to income is a regressive tax; but a set of weights that rises with income gives the rich more voting power in the priority setting mechanism. There is no explanation of how weights might be able to change over time or of how they might respond to unexpected medical emergencies, other than via the centralized bureaucracy. There are other, better, ways to drive priority setting.

### **Measurement issues**

There are a huge range of measurement and valuation limitations that would be faced by the MRDT and those running it. It is difficult to measure performance and the 'value' of R&D activity from looking at spending flows alone. And putting emphasis only on spending measures also encourages waste. The ability of the MRDT's Secretariat to use this data to reward and punish accordingly is therefore limited.

Many of the definitions of 'priority' areas would be highly subjective and political, with legal disputes likely to favour the powerful and rich. It would be difficult to incorporate valuations based on real-time spending flows and valuations based on far-off outcomes (if there were prize components to the MRDT, for example) into the mechanics of reward and punishment via the MRDT. Commercial confidentiality would undermine ability to collect important private sector spending data.

There would also be multiple double-counting problems: R&D accounting systems are already struggling to deal with this, and it would be unwise to base the MRDT on such accounting systems. Costs of production (since this does not contribute to R&D) would have to be measured

and factored out, and the value of risk-bearing activities measured and factored in; there is no understanding of either of these issues in any of the MRDT literature.

Challenging measurement problems exist in mechanisms such as the Kyoto Protocol; in the case of R&D, converting into a common denominator would be even more difficult given floating, and sometimes unstable, exchange rates, and the need to make a range of heroic calculations to arrive at discounted values of expenditure.

### **Equity issues and developing country buy-in**

The lack of treatment in the MRDT literature of the role of the US is especially perplexing. With the US predominant on just about any measure of R&D, the US would by far and away be the biggest supplier of credits in the credit trading system underpinning the MRDT. The poor in particular would have to be heavy purchasers of US-generated credits, on the basis of no more than the promise that the MRDT will work. It is not clear that the inequities of this would, or should, be accepted by developing countries given the many unresolved issues – and even faults – that lie behind this promise. The credit trading mechanism requires all nations to join, but it is not clear they all would. With the US such a big supplier of credits, neither is it obvious that the market for credits would be liquid and free of manipulation at all times.

### **Efficiency issues**

The MRDT has a range of efficiency issues. It has been proposed that special 'intermediaries' could be set up to drive the efficiency of funding flows through the MRDT to avoid the failings of a centralized mechanism. But there is no evidence that such intermediaries would work. Instead there are dangers of protectionist pressures towards local R&D (this largely flows from the inability of the credit trading mechanism to efficiently separate the sources of finance into R&D from the physical locations of the R&D activity), and many potential negative impacts on current incentives and efficiency. There is even a range of perverse incentives on access, given the way many current pressures to increase access are potentially penalised by the MRDT.

The MRDT proposal also has multiple layers of political infeasibility. These include the unwillingness of poor countries to oblige, the inability of key institutions such as the WHO to renegotiate terms already negotiated in prior treaties, the lack of a legal mandate of such organisations to change IP systems, and problems when one of the players – the US – would be so dominant in negotiations. Indeed, negotiations by key institutions, such as the WHO, may do little more than to reinforce the status quo. Furthermore, the realpolitik of negotiations between countries over spending obligations – with countries seeking the best deal for the amount of R&D they currently fund – instead of leading to a breakthrough in increased support for, and better

prioritisation of health R&D, is much more likely to lead to a strengthening of the status quo even as the level of R&D deteriorates. Throughout, the MRDT is found to be full of unintended consequences, and even to contradict the aims of many of those promoting it.

### **Priorities now**

There are plenty of current innovations, medical and otherwise, that are woefully underused, a situation which will not be resolved by the MRDT. There are multiple ways to achieve impact with global health innovations, without complicating, distracting and delaying us from this goal. Given all the recent initiatives to invest in global health, the real challenge is to turn all of that investment and activity into things that will improve the lives of the poor immediately. We should favour the simple, direct, and immediate over the grandiose and bureaucratic, as typified by the MRDT.