



25 years | *Research and Knowledge
at the heart of development*

HOW CAN RESEARCH BE PUT INTO USE?

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International development research funding



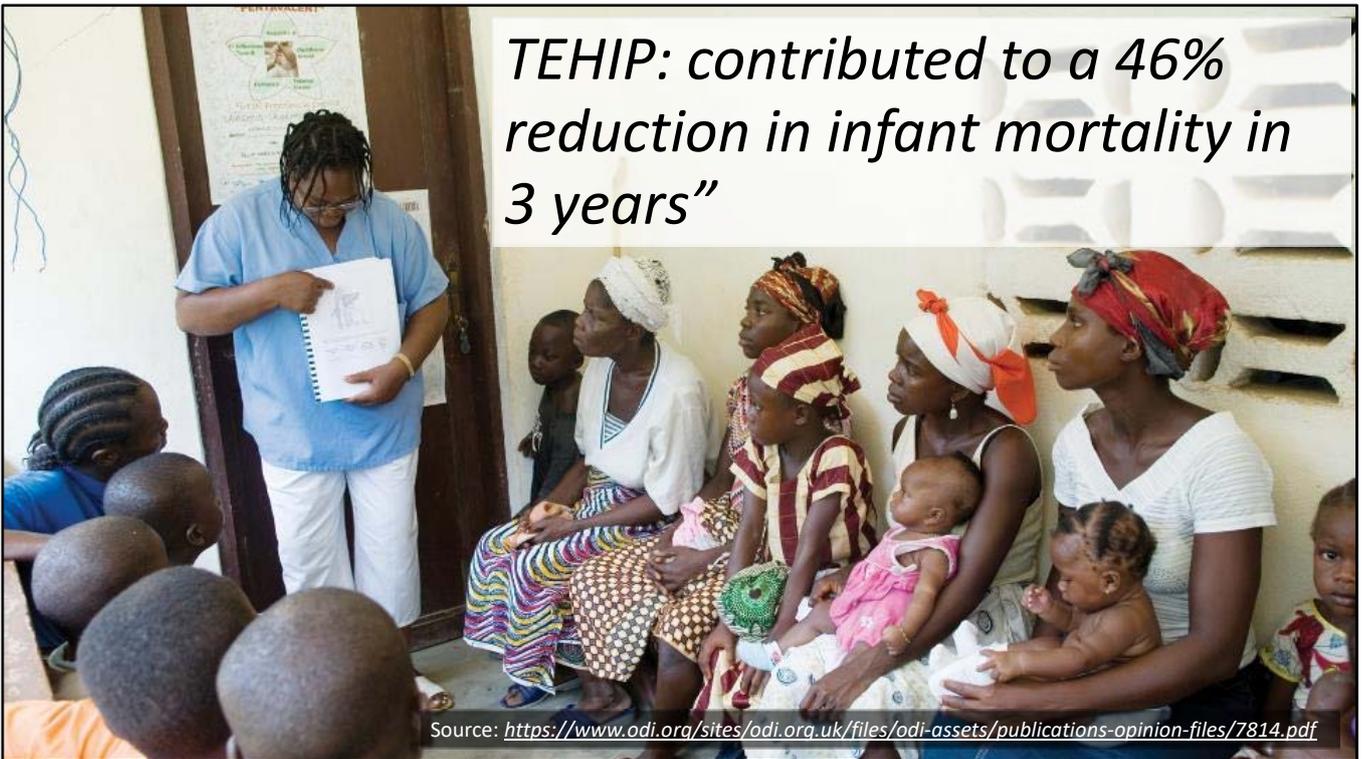
Source: OECD/DAC: www.oecd.org/dac/stats/beyond-oda

- It is almost impossible to find a figure for the total investment in development research.
- The best I have managed is about \$2bn per year (though I do know that DFID spent about \$0.5bn in 2014-15). That sounds like a lot of money.
- But let's put this in the context of all external resource flows to low income countries:
 - ODA - \$130bn
 - Securities and export credits - \$153 bn
 - Foreign direct investment and grants - \$162 bn,
 - and by far the largest Remittances (money sent home by people from LICs living abroad) - \$226 bn
- So overall development research is only about 0.25% of total external resource flows.
- If you compare this with the investment made by the most innovative countries (4.3% in Israel, 2.7% in the USA, 1.7% in the UK, 1.1% in Malaysia and 0.9% in India), and you will see that it is not really very much at all.



- Research can have a huge impact.
- This is a trial plot of IR36 - It took the International Rice Research Institute 15 years to develop it but it is now the most widely grown variety of any food crop worldwide.... 11m hectares are grown worldwide, it constitutes 65% of the rice grown in Asia, it has enabled Asian farmers to harvest an additional 5 million tonnes of rice each year and earn an additional \$1bn annually.

TEHIP: contributed to a 46% reduction in infant mortality in 3 years”



Source: <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7814.pdf>

- And there are impressive results from other kinds of research too.
- The very much smaller scale Tanzania Essential Health Interventions Project simply did disease prevalence surveys in two districts in Tanzania and then modified the national health programme to align more closely with the disease prevalence identified by these surveys and achieved a 46% reduction in infant mortality in just 3 years.



INDIAN INSTITUTE OF DALIT STUDIES

THE PROJECTED RESULT:
**More economic opportunity
for Dalit students**



350K

MORE DALIT HIGHER-EDUCATION
GRADUATES FROM THE NEXT 5
ENTERING CLASSES (~15% INCREASE)

\$2.3B

MORE LIFETIME INCOME FOR THOSE
GRADUATES

THE RETURN ON INVESTMENT (ROI)

IIDS's contributions were influential throughout the policy change process
and required **an investment of only 15 person-years and around \$250K**

\$2.3B more
income

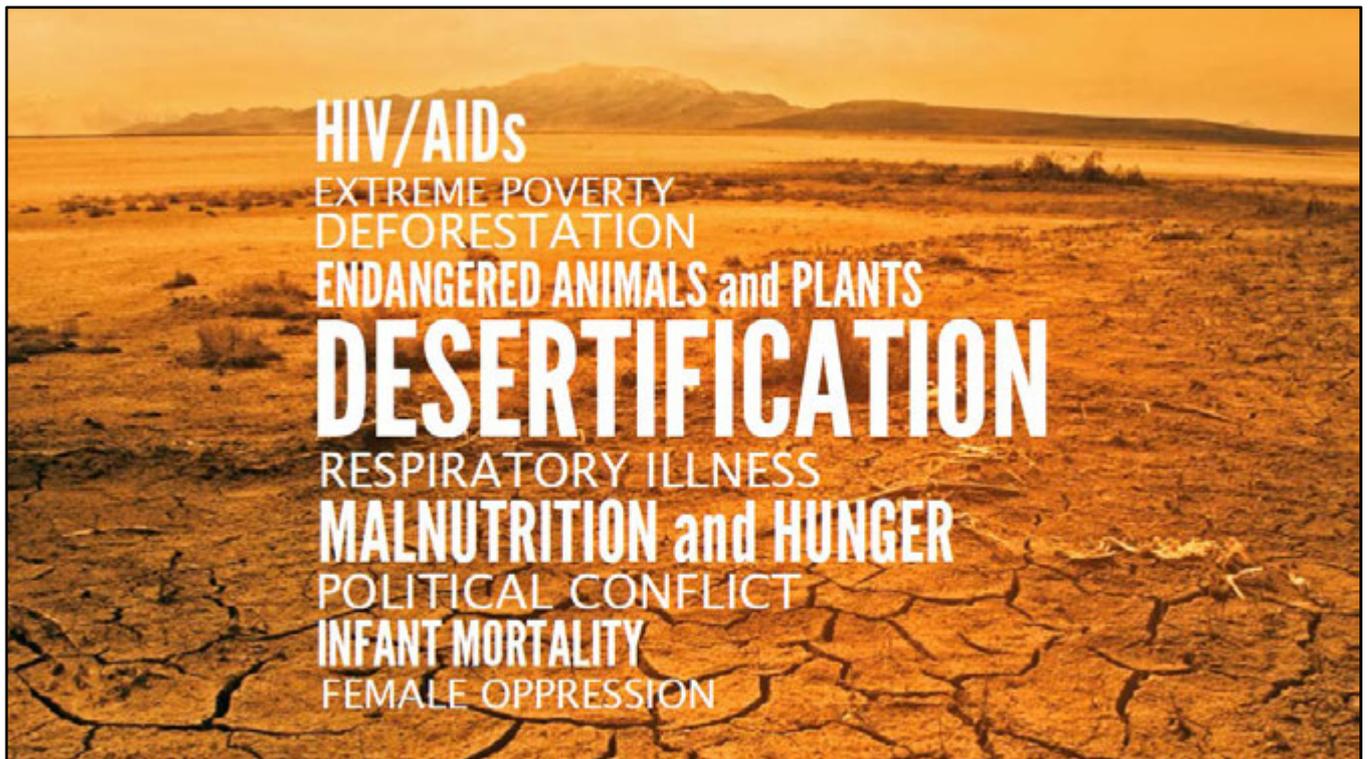
≈ \$9k

In additional income for Dalit
graduates per dollar spent by IIDS
(net present value)

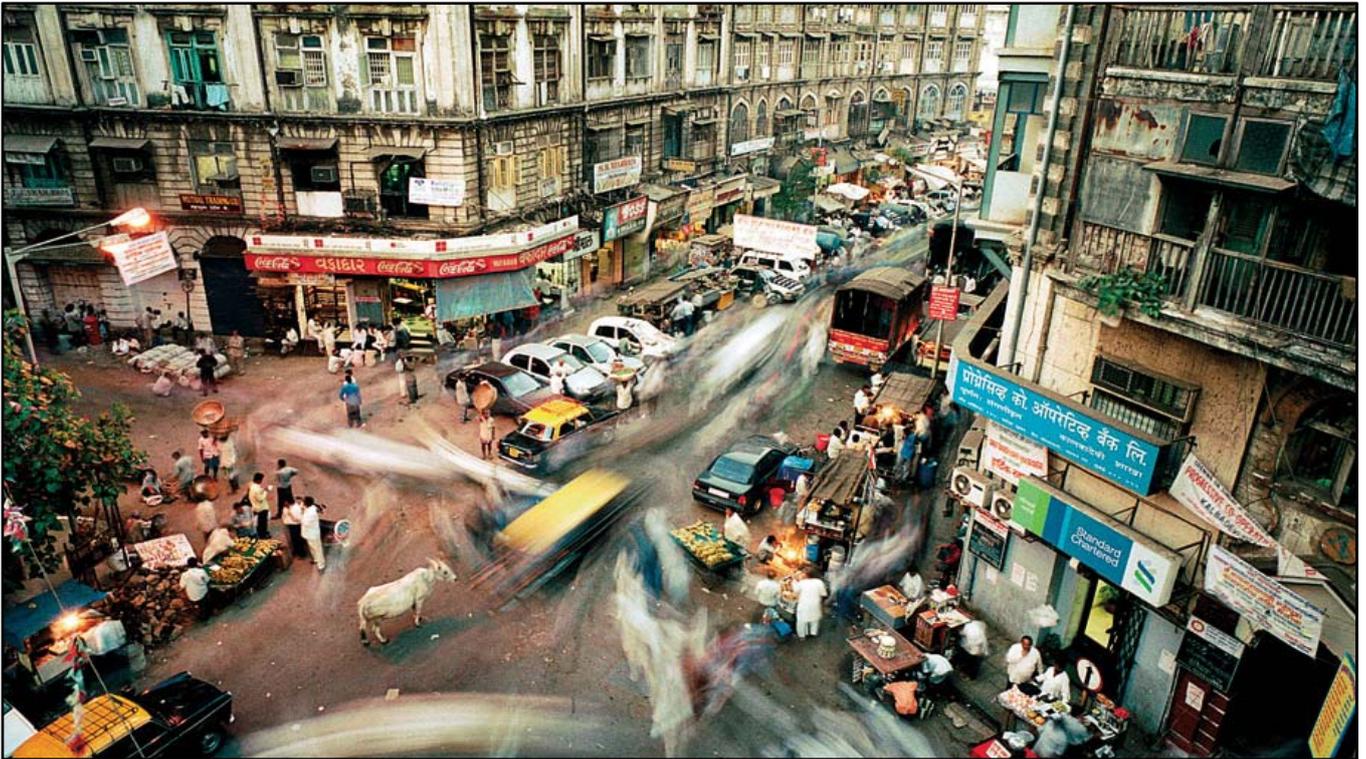
\$250K cost

Source: <https://www.redstonestrategy.com/publications/new-approach-global-think-tank-network/>

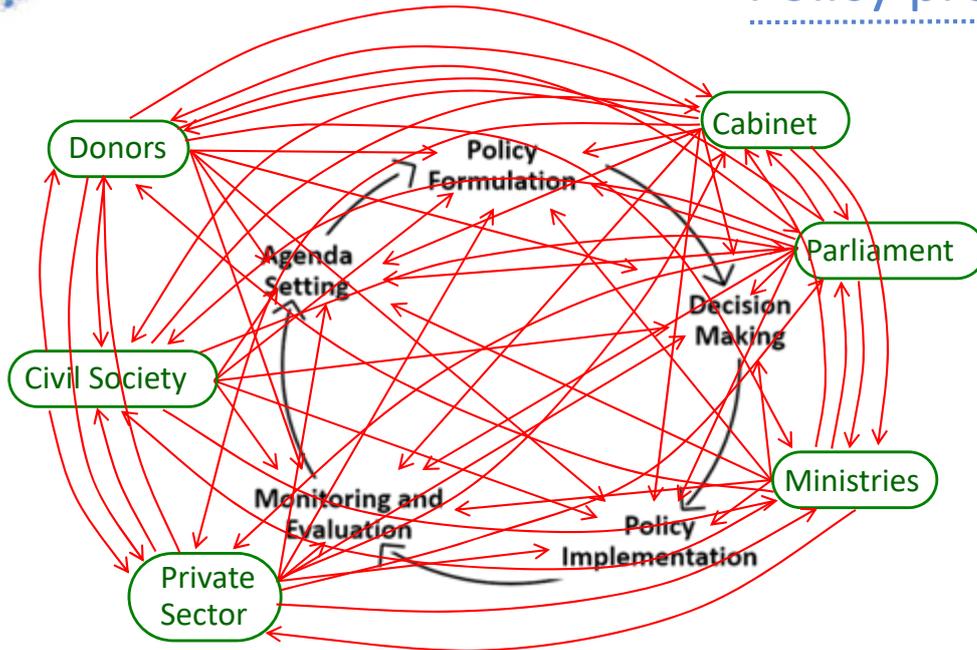
- And the rate of return on research can be huge.
- Redstone Strategy is a US consultancy firm which specialises in assessing the impact of policy advocacy programmes to do a study.
- They looked at the work done by the Indian Institute of Dalit Studies to improve access to higher education for Dalits, and had contributed to a change on policy in the University Grants Commission which increased the number of places reserved for Dalits by 15% to 350,000
- They estimated this would generate \$2.3 bn more income for those graduates.
- They also estimated to cost of the research and policy engagement work IIDS did on this, which delivered an astonishing return on investment of 9,000:1!
- They also assessed how much IIDS could reasonably claim to have contributed to this decisions, at about 53% which still delivered an actual rate of return of over 5,000:1.



- But many development challenges are much more complex than producing new strains of rice, or reserving more places for Dalits at University.
- Here are some of them.
- These sorts of problems are often called wicked problems because they are:
 - Complex – many factors contribute to them.
 - Difficult to solve – simple solutions to one element of each of them often exacerbates others.
 - Long term solutions nearly always involve social and political change.
- And that is always difficult.



- So if you want to address problems like this you really need to understand the context and how things happen.
- Things happen completely differently in different contexts.
- This cow in the middle of the road in India knows that drivers will always swerve to avoid hitting a cow – even if that causes lots of accidents behind them.
- In Britain drivers are taught to avoid doing anything that might cause any other vehicle to change speed or direction.
- Animals in the road in Britain don't survive for long – but the accident rate between vehicles is much lower.



- Achieving sustainable change to scale usually required changes in policy.
- Policy processes are certainly not linear and logical, the commonest representation of them is cyclical, though they are usually not as neat as this.
- There are very many actors are involved and they are have legitimate roles in many of the processes, especially governments.
- There are an increasing number of external actors also all busily seeking to engage in the process directly, though some will be more legitimate than others
- Development donors are increasingly trying to influence all stages of the policy process, and governments are trying to get them back.
- And very soon everybody is trying to influence everybody else.
- So it gets very complicated!
- Some people have described it as chaotic, but we have found that policy makers don't like that term so we tend to say complex, multifactorial and non linear.
- But if you want to try to influence policy you need to understand all of this before you can even figure out where to start

Complex

Setting up health services
– assess, plan, implement,
review, re-plan.

Knowable

Building hospitals –
follow the blueprint.

Chaotic

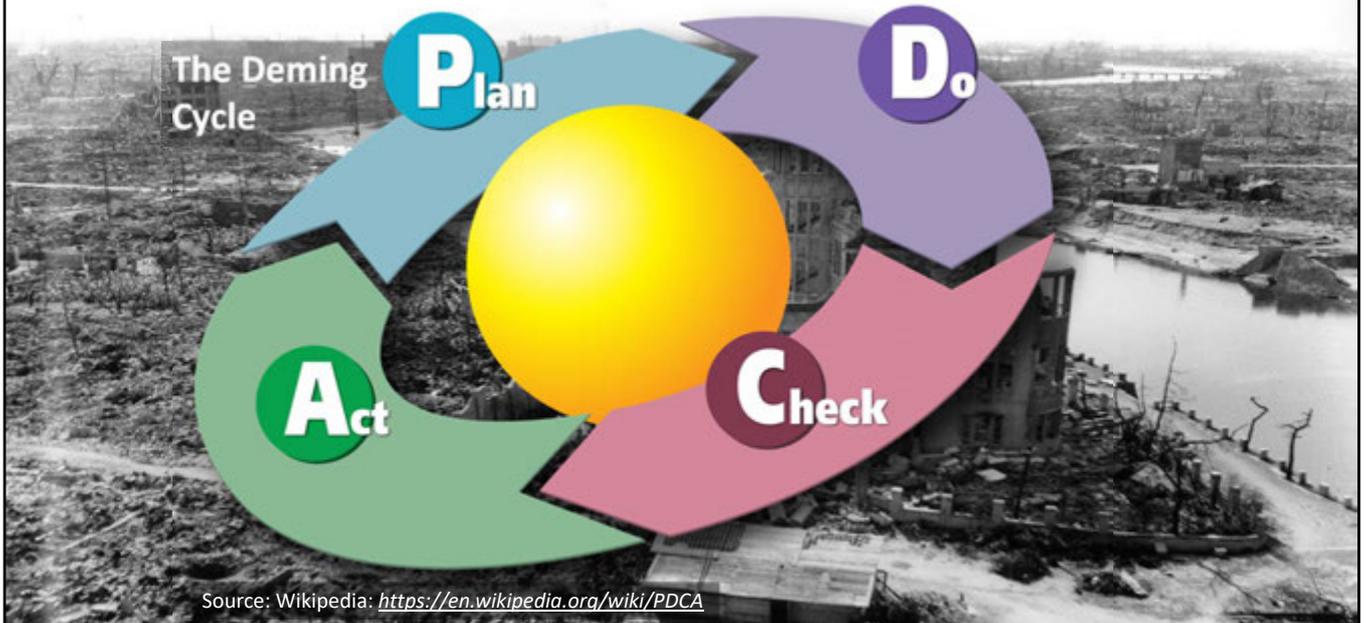
.. in complex emergencies –
just try something sensible,
if it works, do more of it.

Known

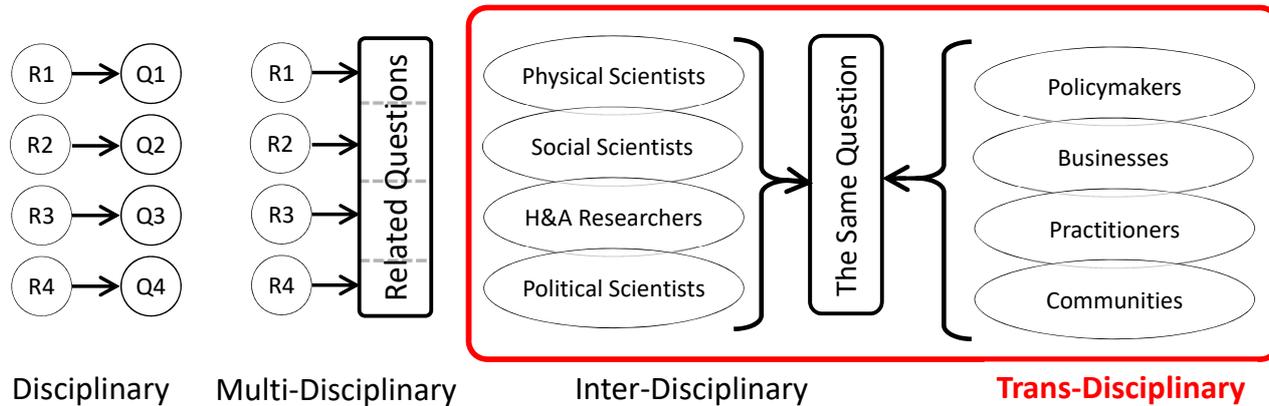
Treating diseases –
use the right dose.

Source: Dave Snowden - www.cognitive-edge.com/library/more/video/introduction-to-the-cynefn-framework/

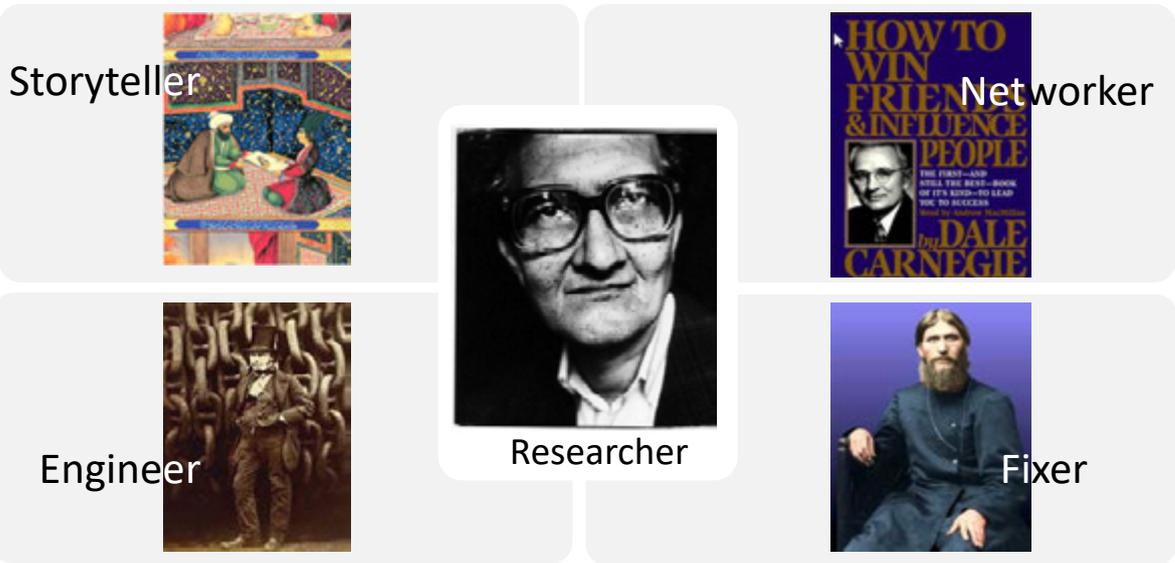
- David Snowden worked for IBM in the late 90s. They were looking for ways to improve management in widely divergent contexts.
- Dave developed the Cynefn framework based on complexity theory as a way of describing different situations and systems.
- The framework identifies 4 different types of situation:
 1. Simple situations where cause and effect are known.
 2. Complicated situations where case and effect are known, but may be in long chains.
 3. Complex, where cause and effect are not clearly linked.
 4. Chaos – where there is no link between cause and effect.
- You can map different development-related issues onto this.
- The management response to each of these though is different:
 1. In simple situations – just follow the recipe or use the right dose.
 2. In complicated situations – follow the blueprint
 3. In complex situations (most of policy) – assess, plan, implement, review and re-plan, and
 4. In chaotic situations, just try something sensible. If it works do more of it, if not do something different.



- This approach is actually very similar to what is known as the Deming cycle, or PDSA cycle.
- The Deming Cycle, originated in the 1920s with the statistician Walter Shewhart, and was developed further in 50s by Total Quality Management guru [Edwards Deming](#) in reconstructing Japanese industry after World War II.
- It is essentially a continuous quality improvement model consisting of a logical sequence of four repetitive steps for continuous improvement and learning: Plan, Do, Study (Check) and Act.
- There is currently a lot of interest in this in development agencies, though they now call it adaptive management or Doing Development Differently.



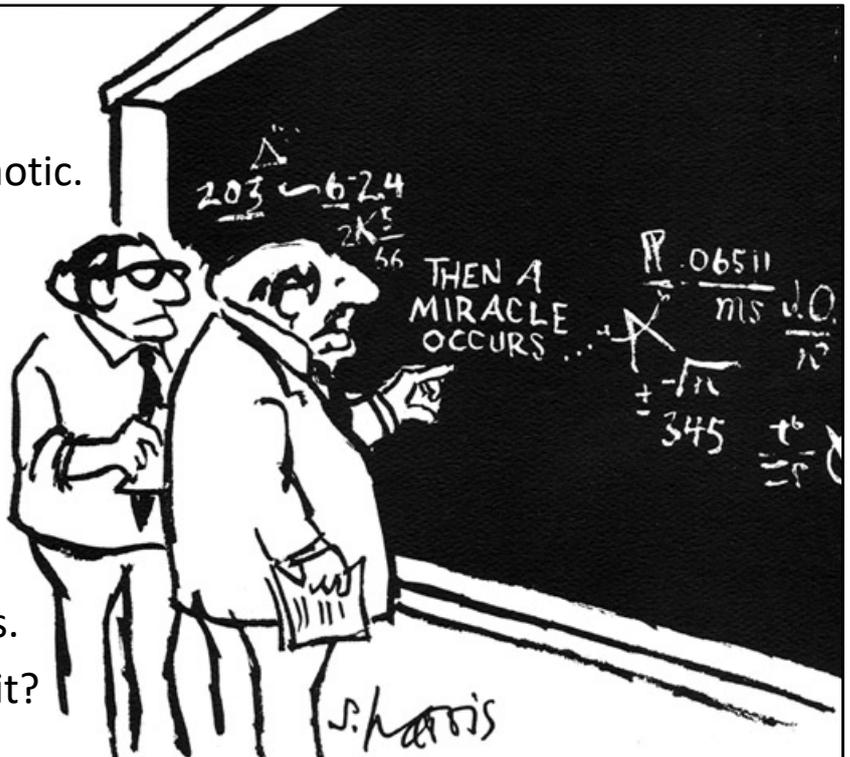
- The equivalent approach in research is sometimes called “Transdisciplinary Research”
- In disciplinary research, researchers and scientists in each discipline use their own disciplinary methods to answer their own specific, often very academic, research questions.
- In multidisciplinary research, researchers from different disciplines work alongside each other using disciplinary approaches to address related questions.
- In interdisciplinary research, scientists from different disciplines work together on the same research question.
- They use a combined approach derived from specific disciplinary approaches.
- In transdisciplinary research the starting point is usually a real-world problem rather than an academic question.
- And researchers work collaboratively on-the-ground with other stakeholders including policymakers, businesses, practitioners and communities.
- Through a participatory process starting with bringing all stakeholders together to identify the problem, collaborative research, then co-analysis of the results and co-production of the recommendations.
- In this way it is much more likely that the research will address the problem, will be useful and will be used.



<https://www.odi.org/publications/5896-policy-influence-policy-entrepreneurs>

- Doing transdisciplinary research required a much wider range of skills than those necessary just to do high quality research
- When Simon Maxwell was Director of ODI he came up with a nice way of describing researchers or research teams doing this which he called policy entrepreneurs.
- As well as doing high quality research – illustrated here by Amartya Sen, researchers or research teams also need to be able to:
 - Distill their results into succinct attractive stories that busy policymakers can easily understand, illustrated here by Scheherazade.
 - Network widely with other stakeholders involved in the policy process.
 - Build research programmes that deliver rigorous evidence on development challenges when there is a possibility to influence policy – illustrated here by Isambard Kingdom Brunel, one of the UK's greatest engineers.
 - Understand and engage with the political process, which he described as "fixers" illustrated here by Rasputin.
- He developed a questionnaire which we have used a lot with research teams to assess their own strengths and weaknesses and what additional skills they may need to bring into the research and policy engagement process through partnerships.

- Policy is complex not chaotic.
- Research is essential.
- Understand the context.
- Not rocket science.
- Transdisciplinarity: need more than just research.
- Good approaches exist.
- There are good examples.
- How can we do more of it?



- Development is complex, but (usually) not chaotic.
- Research is essential for effective development programmes and can have a massive impact (and rate of return) if done right.
- The principles are relatively simple – the first requirement is to understand the context you are working in, and the policy processes you want to influence.
- It is not rocket science – it is really just applying the Deming Cycle, which is itself very well embedded in what is known as transdisciplinary research.
- But to do that you need additional skills – you need to be a bit of a policy entrepreneur.
- And as you will learn from my colleagues there are some very good examples where research has had impact, and some good approaches.
- The question for this afternoon, is how can we do more of it.