

An introduction to real-world extension

by Andrew Bartlett¹

Oops, wrong paradigm!

It is more than four years since I decided to rewrite the Wikipedia article on Agricultural Extension. I took what was then a 'stub' of less than 200 words and turned it into an article of nearly 3'000 words, most of which is still online². In writing that article, I made use of definitions of agricultural extension from 10 textbooks written over a period of more than 50 years. It struck me at the time how these definitions were all *normative* statements about extension, describing how it ought to be rather than how it actually is. I also noticed how these statements became increasingly abstract as time passed.

My discomfort at the mismatch between the rhetoric and the reality has deepened since I wrote that article.

As the manager of a Swiss project supporting the development of a nationwide extension service in South-East Asia, my day-to-day experience is only vaguely related with what I find in most extension textbooks. After working in this field for nearly 30 years, I find it hard to reconcile my responsibilities with what Cees Leewis describes as "a series of embedded communicative interventions that are meant, among others, to develop and/or induce innovations which supposedly help to resolve (usually multi-actor) problematic situations"³. Most extension staff would find it hard to

understand what that means, let alone be capable of putting it into practice.

Let me risk the indignation of my friends who work in academia or in the head-quarters of aid agencies, and respectfully suggest that the publication of *A Guide to Real-World Extension* is long overdue. Quite a number of reports have been written that provide glimpses of the inconvenient truths associated with agricultural extension, but they have a limited audience and – to my knowledge – have never been consolidated in the form of a book.

I should make it clear that I do not want to encourage the reductionism and value-free descriptions associated with positivism, which is often seen as the opposite of the normative perspective. But I *do* want to see a more critical analysis of what actually takes place in our field of work, and I would like this analysis to be more widely available.

Let me add a note of contrition and admit that in the past I have often avoided 'telling it as it is'. I have written quite a few utopian project documents and produced plenty of rose-tinted progress reports. And maybe I should mention the case studies and fact-sheets, in which both the cases and the facts were carefully selected. But that's our job, right? To recommend, to promote, to convince. To extend.

As a corrective, I offer the following notes for the first edition of 'A Guide to Real-World Extension'. This is an introduction, some starting points not a comprehensive draft, but I hope this is enough to stimulate further interest in the subject.

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² http://en.wikipedia.org/wiki/Agricultural_extension

³ Leewis, C & Van den Ban, A (2004) *Communication for Rural Innovation: Rethinking Agricultural Extension, 3rd Edition*, Blackwell

Some inconvenient truths

Extension organisations

While the normative description of agricultural extension uses terms like 'systems' or 'services' most real-world extension is characterised by bureaucracy. Extension is usually identified with a Government Department not an abstract function, and it consists of a hierarchy of Directors, Deputy-Directors, Assistant-Deputy-Directors (and etc.) not a network of stakeholders. At the bottom of this hierarchy is an army of field workers who – in the past – depended for their survival on aid projects.

A large portion of the time and money that donors have spent on extension has gone into setting up and maintaining these organisations, rather than in the delivery of actual services. It often seems that government officials and foreign advisers – like myself – are the main beneficiaries rather than farmers.

In the absence of external assistance, these Departments are usually under-funded and under-equipped, subject to frequent reorganisation and given a number of responsibilities that have little to do with the textbook version of extension. Compiling statistics, selling inputs and collecting taxes are – in many cases – just as important as *voorlichting* or *vulgarisation*. Field staff are poorly paid, with the result that they often have second jobs or seek to extract rents from their nominal 'clients'.

The donor community, despite an oft-stated concern for sustainability, has usually added to the recurrent costs of maintaining extension services – by providing buildings, vehicles, and a wide range of financial incentives – thus making life even more difficult for the concerned Departments once projects come to an end.

Across Asia, from Pakistan to the Philippines, I have seen rows of rusting vehicles, training centres filled with broken furniture, offices cluttered with projectors and computers that do not work, and storerooms full of expired chemicals. The field staff of these organisations are often absent, or they sit around smoking, chatting and waiting for the next project to come along.

This is a familiar story to most extension advisers. The simplistic explanation is that Governments lack the required funds. But it may be more accurate – and more painful – to acknowledge that extension departments have repeatedly failed to convince policy makers that they are worthy of a greater slice of the Government budget.

In recent years there have been a number of attempts to reform extension organisations in a way that will reduce the financial burden for Governments. Some extension experts are of the opinion that 'experiments' with privatisation have not always gone well. Kalim Qamar at FAO believes that "hasty alternate solutions in many instances did more damage than benefit"⁴ Qamar explains that in some countries public extension services have now disappeared, leaving farmers with "no one to satisfy their knowledge, information, skills and institutional needs". I can't help wondering if farmers in these countries have noticed the difference.

Improvements in education, the spread of new communication technologies, and the growth of the private sector have all created a situation that is profoundly different from that which existed when extension organisations were first established. But, incredibly, when FAO and the World Bank got together to formulate a new vision of the Agricultural Knowledge and Information System (AKIS), they continued to picture farmers as being stuck in the middle of a 'knowledge triangle' consisting of public sector research, extension and education, thereby marginalising other information channels and downplaying other behavioural determinants⁵.

After a period of more than 50 years in which Governments and donors have been establishing, strengthening and reforming agricultural extension, the outcome in many countries is "an organisation has been created which, on the one hand doesn't produce the required

⁴ Qamar, M K (2005) *Modernizing National Agricultural Extension Systems: A Practical Guide for policy-Makers of Developing Countries*, FAO

⁵ FAO / World Bank (2000) *Agricultural Knowledge and Information Systems for Rural Development (AKIS/RD): Strategic Vision and Guiding Principles*

outputs and, on the other hand, has not secured the flow of inputs required to maintain its operations”⁶.

Extension and productivity

If Governments are unwilling to provide greater funding for agricultural extension, it may be because policy makers are unconvinced about the impact of such investments. There are plenty of claims about the benefits of extension, but little conclusive evidence.

At the end of the 80’s, the World Bank reviewed a large number of studies and found “a significant and positive extension effect”⁷. This is an oft-quoted report, but it is worth noting that – at the time – the World Bank was keen to justify the fact that over the previous 20 years it had lent 2 billion dollars for over 500 extension projects, many of which made use of the Training and Visit system (T&V). Less than twenty years later, some of same authors – most notably Gershon Feder – were presenting a rather different picture, referring to T&V as a ‘fad’ and describing it as ‘a high-cost extension model for which there was no rigorous evidence of widespread success at the farm level’⁸.

Going back even further, one of the earliest books on extension in the USA gives results from a survey conducted in 1947 that showed ‘over 3.8 million farms changed one or more agricultural practices as a result of extension teaching’⁹. I have no doubt that farmers changed their practices, but was this change really a result of *extension teaching*?

A recent impact study carried out under my own project in Laos showed that approximately 40% of the

farmers who attended extension training subsequently changed their practices. However, about 20% of the farmers who did not attend training also changed their practices. It would be convenient for me to conclude that our extension activities had succeeded in introducing new practices to a ‘significant’ number of farmers, but it may be equally valid to conclude that these activities had merely accelerated changes that would have taken place in any case.

The fact is that farming systems are not static, and most farmers will test new practices and make changes with *or without* government services. Consequently there is a huge problem of attribution when assessing the impact of extension.

I have faced this problem in major evaluations of extension services and agricultural research programmes in Bangladesh. In the case of research, the country achieved rice self-sufficiency during the period being reviewed. Researchers were keen to claim credit for the improvements in production, but the team leader of the evaluation was inclined to believe that the real cause was the recent liberalisation of rice markets which provided farmers with better incentives. During the assessment of the extension programme it was hard to find many farmers who had actually met an extension worker. But the majority of growers said they regularly listened to the radio programmes produced by the Ministry of Agriculture and had tried new practices recommended during the broadcasts. A question the review team could not answer was ‘who is having greater impact, the 7-man media unit or the 15,000 field workers?’

It is also worth considering how many other projects and programmes are claiming the credit for improvements in agricultural production. Not only research and extension, but irrigation departments, agro-chemical companies, cooperatives and community development programmes. They may all be making a contribution, but not to the extent they are claiming.

One of the things that evaluators look for is a ‘counterfactual’, a control situation where the intervention being assessed was *not* carried out. This is difficult to find in the context of national extension services. But it is worth considering what happened before

⁶ Bartlett A (1992) *Capacity and/or Capability: The dichotomy of institution-building to strengthen agricultural extension. International Seminar on Strengthening Extension Capabilities in Developing Countries, UPLB, Los Banos*

⁷ Birkhaeuser, D, Evenson, RE, & Feder, G (1991) *The economic impact of agricultural extension: A review. Economic Development and Cultural Change* 39.

⁸ Anderson, J R, Feder, G & Ganguly S (2006) *The Rise and Fall of Training and Visit Extension: An Asian Mini-drama with an African Epilogue. World Bank Policy Research Working Paper* 3928

⁹ Brunner, E & Yang, E H P (1949) *Rural America and the Extension Service: A History and Critique of the Cooperative Agricultural and Home Economics Extension Service. Columbia University*

extension services were introduced. In the case of the USA, we can point to hundreds of breeds and varieties that were introduced or improved by farmers themselves. Farmers also designed and manufactured their own equipment, organised their own clubs and fairs, and published their own magazines. Similar evidence can be found in many other countries of the changes that farmers were making before the creation of agricultural ministries, research institutes and extension services¹⁰.

Most extension managers have been asked the question 'what does the extension department actually do, other than implement a few foreign projects? The question usually arises in the evening, after a beer or two. Most of us change the subject.

Poverty alleviation

During working hours, the question of what to do with extension organisations cannot be avoided. In the past two decades, following the collapse of T&V in country after country, extension experts have sought a new purpose for their work.

An important goal set by most donors for recent extension projects is *poverty alleviation*. Given the prominence of this issue in the current discourse about development, it is hard to realise that poverty was hardly ever mentioned in extension texts before 1990. The interests of poorer farmers are not considered in the section on 'targeting' in the classic text by Van den Ban and Hawkins published in 1988¹¹. Nor are they mentioned in the World Bank's policy paper on 'Agricultural Extension: The Next Step', published in 1990 in an effort to dig their way out of the aftermath of T&V¹². In those days, extension was still

largely driven by the assumption that modernization and growth were inherently good and we didn't need to worry about the distribution of benefits. Or maybe it was assumed that 'diffusion' would eventually take care of the laggards.

How has extension been doing in terms of poverty alleviation? It is not hard to find 'outsiders', such as James Scott and Vandana Shiva, who are highly critical of agricultural development programmes. It is also possible to find some critical insiders. As early as 1987, Peter Oakley, co-author of the FAO Guide to Extension Training, was saying "There are few who would stand up and assert that technology transfer via formal extension has had any substantial impact upon the vast majority or rural poor in the Third World"¹³.

More recently, the Overseas Development Institute (ODI) published a series of case studies on 'Extension, Poverty and Vulnerability'. If we take one of those cases – Vietnam for example – we find that either the extension system fails to reach the remote areas where the poorest people are living or, if it does reach these areas, it is part of a package of policies that aim to resettle communities and eliminate traditional cropping systems. The extension service in Vietnam has also "placed too much emphasis on the mass production of certain export crops, such as coffee and sugar, which have rendered a lot of people highly vulnerable to fluctuating world market prices"¹⁴. Sadly, a similar situation exists in many other countries.

Again and again, we find that extension organisations lack the interest or expertise required to help poor farmers improve traditional farming systems. Karez¹⁵ irrigation, shifting cultivation, transhumance, artisanal fishing, the gathering of forest products, deep-water

¹⁰ An entertaining introduction to the history of agricultural innovation is James Trager's 'The Food Chronology' (1995), Aurum Press; More detailed accounts include: Randhawa M S (1980-1986) *A History of Agriculture in India*. 4 vols, ICAR; Needham J, & Bray F (1984) *Science and Civilisation in China: Volume 6, Biology and Biological Technology, Part 2, Agriculture*. Cambridge; Thirsk, J Ed., (1972-1978) *Agrarian History of England and Wales*. 8 vols, Cambridge.

¹¹ Van den Ban, A & Hawkins, H S (1988) *Agricultural Extension*. Longman

¹² World Bank (1990) *Agricultural Extension: The Next Step*. Policy and Research Series No. 13.

¹³ Oakley, P (1987) *Changing aims, changing roles: extension and technology transfer, the need for an alternative*. AERDC Bulletin 22, University of Reading

¹⁴ Beckman, M (2001) *Extension, Poverty and Vulnerability in Vietnam Country Study for the Neuchâtel Initiative*. ODI Working Paper 152

¹⁵ The Karez system is also known by the name 'Qanat'. It is a traditional form of irrigation used in parts of the Middle East. The system had been maintained for hundreds of years, but was being destroyed by modern tube wells. For more information see <http://en.wikipedia.org/wiki/Karez>

rice... these are some of the systems I have encountered for which extension staff have nothing to offer.

Instead, they would prefer to replace traditional practices with tube-wells, motor-boats, monocultures, stall feeding and other 'modern' technologies which tend to benefit richer farmers and squeeze out the poor.

This is not intended as a criticism of the staff of Government agencies who are under pressure to achieve a number of different policy goals. These extensionists may rightly wonder how they will meet national targets for food crops or exports if they focus on the interests of those families who have hardly any land, who cannot be taxed, and who are often unable or unwilling to attend meetings. I have also heard economists from multilateral banks suggest that instead of encouraging the smallest producers to stay in business, we should let them move out of agriculture and thereby allow more efficient use of the land. Personally, I don't agree with this view, but extension staff often don't have a choice. They are accountable to government planners and local politicians, not small farmers.

Extension and markets

If the new purpose for extension in the 90's was poverty alleviation, the purpose for the first decade of the 21st century seemed to be 'linking farmers to markets'. Suddenly, a large number of extension projects were conducting studies of value chains and acting as a middleman between farmers and processing companies or supermarkets. Ignoring the concerns raised in Seattle, many donors and NGOs embraced globalization as an inevitable development, and took it as their job to ensure that farmers benefited from the opportunities created by the expansion of international trade.

Most of these efforts were well-intentioned, and there have been some success cases, but I have seen plenty of badly planned and badly managed interventions. A large number of extension experts - having trained as agronomists or engineers and with no prior experience of actually running a business - suddenly became marketing advisers. I have heard real businessmen complain about how these efforts have distorted rather than improved market structures, creating unsustainable 'protectorates' for the few farmers

who are lucky enough to be subsidised by foreign aid organisations.

In Laos, a relatively small country, at least five aid organisations are touting their own brand of interventions in agricultural value chains, with competing acronyms and training manuals. They have carried out studies, set up farmer groups, and assisted in the certification and marketing of very small quantities of produce. Meanwhile, there has been a massive wave of foreign investment coming into Laos, and a flood of commodities being exported to neighbouring countries. Aid projects have – to some extent – been able to surf on that wave, appearing to be part of the economic transformation that is taking place. But the actual influence of these projects on the direction of the tide, and on the numbers of people who are swimming or drowning, appears to be insignificant.

As in so many other countries, agricultural extension projects in Laos are attempting to improve the lives of farmers while ignoring most of the political-economic processes that shape those lives. This is what Tania Murray Li has called 'rendering technical'¹⁶, and it takes place in market-oriented projects no less than it did with production-oriented projects. Complex situations have been carved into a set of problems that can be solved by the available means, i.e. consultants' reports, training programmes, some vehicles and maybe a little credit. Outputs are produced and objectives are achieved, but patterns of land ownership, the role of women, the relationship between ethnic groups, and the status of the political elite do not change. Market chains are modified, but market structures become more entrenched.

The global financial crisis of the past two years will, one hopes, subdue the enthusiasm for market-oriented extension, at least in its current form. It should now be clear that the risks and vulnerabilities associated with international value chains are higher than many extension experts had realised. At the same time, there is a growing public awareness of the harm being done by industrial food systems, raising questions about

¹⁶ Li, T M (2007) *The Will To Improve: Governmentality, Development and the Practice of Politics*. Duke University

the complicity of associated service organisations¹⁷. And for those who continue to believe these problems are temporary or unavoidable, they would do well to consider the spectre of 'peak oil' that all of us need to confront in the near future. Rob Hopkins, a leader of the Transition Towns movement in the UK has eloquently summarised the issue:

"Will the developing world be lifted out of poverty by continuing to dismantle its own food resilience and becoming increasingly dependent on global trade, which is itself massively dependent on cheap oil we can no longer rely on? Is the way out of poverty really an increasing reliance on the utterly unreliable?"¹⁸

Reconstructing the normative

The purpose of this introduction to real-world extension is not to complain or vent my frustration, but to provide a stronger foundation for praxis. Development involves a process of planned change from a situation deemed unsatisfactory to an improved situation. We need a normative view of extension, but for it to be feasible it must be constructed upward from the ground on which we stand, not floating in the air like the island of Laputa.

Reconstructing the normative requires that we ask the most basic of questions: do we need extension? This question will surprise some readers. You would not expect an airline pilot or a flight crew to question the need for air travel. But the real-world perspective should make us reflect on the fact that farmers have managed without extension services throughout most of human history and – even today – most farmers continue to manage without.

Maybe it is time to accept that agricultural extension is not like primary education or health care. The real demand for extension, and the real benefits it produces, do not justify creating or maintaining a permanent

service with universal coverage. With this point in mind, I would like to suggest that a less idyllic vision of extension would have the following key features.

Programmes not institutions

Instead of focusing on institutional development, and the associated problems of underpaid field workers and dilapidated buildings, perhaps extension should be seen as a programme with precise goals and a fixed duration. In other words, extension would be organised as an 'adhocracy' rather than a bureaucracy, and would be judged on its medium-term impact rather than long-term persistence.

An extension programme could do many of the things that existing extension departments try to do: introduce new techniques (eg. varieties, fertilizer, vaccines); introduce new ways of thinking (eg. ecology, marketing, nutrition); and introduce new forms of organisation (eg. saving groups, research groups, resource management groups,). The key word here is 'introduce'. Once a critical mass of farmers have been exposed to the basic ideas, the job is done. The private sector, the mass media and rural people themselves will take care of the rest. In other words, there is no need for a sustainable extension service. No need to keep repeating the same basic messages, no need to push more and more sophisticated technology to smaller and smaller audiences, and certainly no need for governments or donor agencies to supply inputs, arrange contracts with traders or manage the activities of community-based organisations.

Based on past experience, I would suggest that such a programme requires about 25 years, and that it is deserving of donor support from beginning to end. I would also suggest that this programme has been largely completed in most parts of Asia, and we should not be overly concerned about the collapse or redundancy of the government organisations that were created to implement it.

Authors such as Rivera have argued that after 20 years of criticism and under-investment the pendulum is swinging back towards public sector extension, and that a new vision is both necessary and possible¹⁹.

¹⁷ See, for example, Raj Patel (2007) *Stuffed and Starved: from farm to fork, the hidden battle for the world food system*; Tony Weis (2007) *The Global Food Economy: the battle for the future of farming*; Paul Roberts (2008) *The end of food: the coming crisis in the world food industry*; Karl Weber Ed., (2009) *Food, Inc.: how industrial food is making us sicker, fatter and poorer – and what you can do about it*.

¹⁸ Hopkins, R (2009) *Resilience Thinking. Resurgence* 257

¹⁹ Rivera, W M & Qamar, M K (2003) *Agricultural Extension, Rural Development and Food Security Challenge. FAO*

Unfortunately, these arguments have been marred by the use of examples such as the FAO Special Programme of Food Security (SPFS) which has generated almost as many rose-tinted normative accounts of extension as the World Bank's Training & Visit system.

I do not question the value of public sector information services, but I believe it is inefficient and paternalistic for Ministries of Agriculture to indefinitely maintain an army of field workers whose job it is to advise farmers. Yet despite all the talk of 'pluralism' and 'demand-led' extension, those armies continue to exist in country after country.

Empowerment not adoption

Programmes require different indicators of success to institutions. I would argue strongly that 'empowerment' should be given more emphasis than the adoption of any specific packages of techniques.

The term 'empowerment' means different things to different people; I have written before about how "The debate on empowerment encompasses an older discourse about the intrinsic value of empowerment, and a newer discourse about the instrumental benefits of empowerment"²⁰. In the context of this reconstructed vision of extension, the term suddenly takes on a more precise meaning: empowerment involves farmers becoming self-reliant decision-makers *who can cope without the advice of an agricultural extension service*.

If empowerment is to become an indicator of success, I would suggest that extension programmes should pay more attention to the following three issues:

Firstly, we need to promote the idea of 'farmers as experts'. This has been the slogan used by trainers organising Farmer Field Schools (FFS) in various parts of the world over the past twenty years²¹. During FFS, farmers acquire an understanding of agro-ecological principles and develop skills in critical thinking that

enable them to better manage their farms. Consequently, they no longer need extension staff to tell them how to solve their problems.

Secondly, we need to promote the idea of 'the networked farmer'. Past extension projects – including those which are market oriented – have often created or reinforced patterns of socio-economic dependency, in which a farmer's behaviour is determined by a small number of other actors such as landlords, traders or government officials. Human systems, like ecological systems, are stronger and more adaptable if they have more connections, and extension should help farmers become part of broader socio-economic networks that give them greater choices and a wider range of support. Recent developments in Social Network Analysis provide the concepts and tools required to support these efforts²².

Thirdly, we need to promote the idea of 'resilience in farming systems'. Resilience is the opposite of vulnerability. It is the "Capacity of a social-ecological system to absorb a spectrum of shocks or perturbations"²³. The concept has gained attention in the context of climate change, but this is not the only global dynamic to which farmers need to adapt. International markets have also shown a tendency to change in an unpredictable manner. Resilience in farming systems requires the development of 'adaptive capacity'. Being knowledgeable and networked will improve this capacity among farmers, but they also need to maintain a certain level of diversification in terms of both inputs and products.

These three ideas provide a pragmatic approach to fostering empowerment. When farmers become experts who are networked and who have a high level of

²⁰ Bartlett, A (2008) *No more adoption rates! Looking for empowerment in agricultural development programmes*. *Development in Practice* 18(4-5)

²¹ Pontius, J, Dilts, R & Bartlett, A (2002) *From Farmer Field School to Community IPM: Ten Years of IPM Training in Asia*. FAO

²² See, for example: Davies, R (2009) *The Use of Social Network Analysis Tools in the Evaluation of Social Change Communications*. Paper commissioned by the Communication for Social Change Consortium; Prell, C, Hubacek, K & Reed, M (2009) *Stakeholder Analysis and Social Network Analysis in Natural Resource Management*. *Soc Natur Resour*, 22(6); Castella, J C et. al. (2006) *Connecting Marginal Rice Farmers to Agricultural Knowledge and Information Systems in Vietnam Uplands*. *Agric Educ & Exten*, 12(2)

²³ Chapin, F S, Kofinas, G P & Folke, C (2009) *Principles of Ecosystem Stewardship: Resilience-Based Natural Resource Management in a Changing World*. Springer

adaptive capacity, then they will no longer need the services of extension workers.

Final words

While introducing FAO's 'Normative Framework for Extension Review and Reform' (NFERR), Kalim Qamar wrote that "The NFERR is optimistic, forward-looking and action-oriented in character. As such, it is not meant for in-depth studies of traditional extension systems and some obviously failed experiments in extension in order to identify their weaknesses and reasons for failures. Too much literature already exists on this subject."²⁴

I agree that the normative view should be forward-looking and action-oriented. But should it be optimistic? No. Not if that means deceiving ourselves about what is possible. And I do not believe that too much literature exists on the weaknesses and failures. Quite the contrary, we need a more honest assessment of past experience and current realities if we are to build a better future.

I am sure some readers will think I am being optimistic when I write about 'empowerment not adoption'. Do governments and donors really want farmers to be empowered or do they prefer to see farmers used as instruments in achieving policy goals and production targets?

Maybe we all need a certain amount of faith to sustain us in the face of reality. This is not the kind of thing I would mention in a Wikipedia article, but among fellow professionals I am willing to admit that a real-world perspective is not enough to keep me going, day after day, year after year. But if we need a normative vision to motivate us, let it be a vision that we can understand and believe in, not an abstract or idealistic creation that will remain forever beyond our grasp.

**If we must dream,
let it be with our eyes wide open.**

²⁴ Qamar, M K (2005) *op. cit.*