The context of communication for development, 2004

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"…..if development can be seen as a fabric woven out of the activities of millions of people, communication represents the essential thread that binds them together.
On the one hand, communication as dialogue and debate occurs spontaneously in any time of social change. The increased freedom of expression in recent times has been almost simultaneous with changes in the global political structure.
On the other hand, it is communication as a deliberate intervention to affect social and economic change that holds the most interesting possibilities. A development strategy that uses communication approaches can reveal people's underlying attitudes and traditional wisdom, help people to adapt their views and to acquire new knowledge and skills, and spread new social messages to large audiences.
The planned use of communication techniques, activities and media gives people powerful tools both to experience change and actually to guide it. An intensified exchange of ideas among all sectors of society can lead to the greater involvement of people in a common cause. This is a fundamental requirement for appropriate and sustainable development."

Communication: a key to human development,

Colin Fraser and Jonathan Villet, FAO, 1994

INTRODUCTION

The importance of communication in the development process has been acknowledged for many years by the development community. FAO has spent at least thirty years pioneering and promoting - both in thinking and practice - the centrality of communication in development. The most essential ingredient of good communication – putting people at the centre of the communication process - has similarly been understood and documented for many years.

Despite this, the 2004 Communication for Development Roundtable takes place against a background where resources for communication activities continue to be difficult to mobilize, where strategic thinking and implementation of communication in development are going through a period of some confusion, including within several bilateral and multilateral agencies, and where development organizations continue to find it difficult to put people at the centre of the communication process.

It also takes place at a time when the arguments for effective, professional and people-centred communication strategies have arguably never been as compelling.

This paper seeks to provide a brief overview of the context of development communication, particularly in terms of some key trends and events since the last Roundtable on Communication for Development in 2001, as well as a contextual link between the 2001 and 2004 roundtables. It does not claim to be comprehensive, and has sought to avoid duplication with some of the other papers prepared for the 2004 Roundtable. It falls into four sections.

First, it examines the development context, particularly focusing on the principle strategies now being deployed to meet the Millennium Development Goals, and the relevance of communication to these strategies. It also outlines some of the other key development challenges where particularly strong arguments can be made for the centrality of communication, with a focus on the subject of the last Roundtable, HIV/AIDS communication.

Second, it examines the changing communication environment and looks at some of the implications of these changes for current debates on communication.

Third, it briefly examines the context of funding and resources available for communication initiatives.

Finally it seeks to identify some of the main obstacles which need to be tackled if communication for development is to receive a substantially higher priority in international development strategies

The specific issues of communication and sustainable development which form the main focus of the Roundtable are covered in detail in other papers prepared for this event and are only lightly covered in this paper. The views expressed in this paper are those of the author and should not necessarily be taken as the views of FAO.

1. THE DEVELOPMENT CONTEXT

1.1. From globalization to global security

One dominant global event since the last Roundtable has shaped almost everything else – the attack on the US on September 11 2001. Never before has communication across boundaries and between cultures been more important, and never before has global security depended on the existence of channels that promote such communication. Arguably those channels have rarely been more fragile.

The prevailing context for much development discourse work before September 11 was focused on globalization and the associated interdependence and interconnectedness of all peoples, a process fundamentally dependent on and shaped by increasingly rapid flows of information around the world. The events of and following September 11 heralded a marked shift in international political attention away from globalization, a shift accompanied by an increased parochialism in communication channels.

This was most clearly demonstrated in media reporting of the ensuing conflicts, especially in Iraq. Several major western media organizations (including the New York Times, the Washington Post and CNN) have publicly questioned their own coverage of the run up to the Iraq war. These events saw the increasing credibility of new media players such as Al Jazeera who have, amidst controversy, constituted a major challenge to the dominance of western based news networks. In the US the emergence and rapid popularity of other new players such as Fox TV, explicitly more patriotic in its news values in coverage of the war on Iraq and the war on terror, has reinforced a trend towards a more fragmented media industry. These are among many developments that suggest a growing fragmentation mainstream media reporting at a time of international crisis.

At a time when the international community is so divided, these trends might have been expected to prompt an increase in support for organizations seeking to foster informed public discourse and communication at national and international levels. Much evidence suggests that the contrary has happened.

At the international level, many of the main international NGOs dedicated to generating perspectives from developing countries and broader information flows across boundaries and cultures have suffered substantial uncertainty in funding. At the national level, decisions by many donor organizations to provide budget support to governments has often resulted in a shift of resources away from civil society organizations, many of them dedicated to fostering informed dialogue in society.

Some donor trends in the field of communication are detailed in Section 4 but at this point it is worth noting how difficult it is to discern a significant strategic response post-September 11 among donors and development actors, particularly in relation to building communication bridges and conversations across cultures. Global terrorism and the war on it are events where the communication community has a critically important role in making the world a less dangerous place. And yet, as Section 4 suggests, there appears to be a general and puzzling trend towards disinvestment in such communication.

1.2. Millennium Development Goals and Poverty Reduction Strategy Papers: The central role of communication

The principal strategic reference points for the global development community are the Millennium Development Goals (MDGs). Nearly all bilateral funding agencies, most multilateral agencies and many NGOs have explicitly aligned their medium- and long-term priorities to meeting the MDGs (see box).

UN International Development goals By 2015:

1. Eradicate extreme poverty and hunger	Reduce by one half the proportion of people living on less than a dollar a day
	Reduce by half the proportion of people who suffer from hunger
2. Achieve universal primary education	Ensure that all boys and girls complete a full course of primary schooling
3. Promote gender equality and empower women	Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015
4. Reduce child mortality	Reduce by two thirds the mortality rates for infants and children under five
5. Improve maternal health	Reduce by three4 quarters the maternal mortality ratio
6. Combat HIV/AIDS, malaria and other diseases	Halt and begin to reverse the spread of HIV/AIDS
	Halt and begin to reverse the incidence of malaria and other major diseases
7. Ensure environmental sustainability	Integrate the principles of sustainable development into country policies and programmes, reverse the loss of environmental resources
	Reduce by half the proportion of people without sustainable access to safe drinking water
	Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020
8. Develop a global partnership for development	Open trading system, special needs of least developed countries (LDCs), debt, employment, access to medicines, ICTs

The goal given the highest priority and around which many of the others are focused is to halve the proportion of people living on less than a dollar a day by 2015. The principal strategy adopted by the international community to achieve this goal is the development of poverty reduction strategy papers (PRSPs), a process initially promulgated by the World Bank and increasingly being used by most bilateral development agencies.

At the heart of the PRSP process, and indeed a founding principle informing all the MDGs and allied processes such as the New Economic Partnership for African Development (NEPAD), is the principle of ownership. The World Bank has repeatedly argued that unless there is a genuine process of ownership of these strategies within countries, and real participation and dialogue with all sections of society in drawing them up, they will fail.

Achieving such ownership requires, as the Bank itself argues, a major focus on communication. "Participation, the keystone of PRSPs, relies on accurate, consistent and continuous communication that provokes response and encourages debate and dialogue leading to better understanding, the application of issues to ones own circumstances, and participation in all phases of a PRSP", argues the World Bank in its PRSP source book on communication.[1]

[1] *Strategic Communication in PRSP*, Masud Mozammel and Barbara Zatlokal, World Bank, 2003

PRSPs (and their earlier incarnation, Comprehensive Development Frameworks) started to be developed in 1999. While billions of dollars of spending have now been shaped by PRSP processes, repeated criticisms have been expressed over inadequate participation in their design, particularly by civil society,[2] and the lack of public awareness and ownership of the process. Criticism was also expressed by the lack of public discourse of PRSPs, particularly through the media, with surveys suggesting that very often few journalists or editors were even aware of PRSP processes being developed in their countries.[3]

The publication by the World Bank of a sourcebook on communication for PRSPs in 2003, which was itself compiled through a consultative process with communication NGOs and other organizations, marked a major acknowledgement by the Bank of the importance of communication in the PRSP process.

A frequent complaint made by the communication community over many years is that communication strategies are designed as an afterthought (rather than integrated from the start into development strategies), are accorded too few resources and implemented with insufficiently trained personnel. Certainly the central development strategy designed to meet the primary development objective of our times – halving poverty by 2015 – appears to back up the complaint. The evidence of the last five years suggests that the level of ownership, participation and public discourse required for PRSPs to be successful requires a fundamental reassessment and reprioritization of the role of communication in meeting the MDGs.

1.3. Beyond Nicaragua: The continuing HIV/AIDS communication debate

1.3.1. A shift in the HIV/AIDS communication debate

The last Communication for Development Roundtable, held in Nicaragua in 2001, focused explicitly on the theme of HIV/AIDS communication, the success of which is fundamental to meeting the MDG of halting the spread of HIV by 2015. The Roundtable welcomed the revitalized energy and funding being devoted to the HIV/AIDS pandemic and issued a declaration designed to capture the main conclusions of the meeting. Roundtable participants were both explicit and candid in their assessment that communication strategies had, for many various reasons, failed in preventing the HIV/AIDS pandemic. In particular the declaration argued that:

"Existing HIV/AIDS communication strategies have proved inadequate in containing and mitigating the effects of the epidemic. For example, they have often:

- treated people as objects of change rather than the agents of their own change;
- focused exclusively on a few individual behaviours rather than also addressing social norms, policies, culture and supportive environments;

[2] Many examples exist of such criticisms by international and national NGOs and others. One example is *Structural Adjustment in the name of the poor: the PRSP experience in the Lao PDR, Cambodia and Vietnam* by Jenina Joy Chavez Malaluan and Shalmali Guttal, Focus on the Global South, 2002

[3] *Reducing Poverty: Is the World Bank's strategy working?* by Kitty Warnock, Panos, 2002 and *Hearing the voices of the poor: encouraging good governance and poverty reduction through media sector support,* Dr Ann Hudock, World Learning Foundation, 2003

- conveyed information from technical experts rather than sensitively placing accurate information into dialogue and debate;
- tried to persuade people to do something, rather than negotiate the best way forward in a partnership process.

Progress in slowing the epidemic will require a multi-sectoral response and use of communication to tackle the behaviours related to the spread of the epidemic and to address its causes (inequality, prejudice, poverty, social and political exclusion, discrimination, particularly against women)." [4]

The Roundtable brought together a wide range of organizations and marked a decisive recognition that success in achieving sustained behaviour change on a scale required to tackle the pandemic was fundamentally dependent on social change and that communication strategies needed to focus on both.

Since the last Roundtable the response to HIV/AIDS has continued to develop rapidly and its influence is clearly discernible in several important developments. Unicef has been pioneering a new communication for social change (also known as communication from a human rights perspective) programme in Eastern and Southern Africa, particularly in Ethiopia and Zambia. The Rockefeller Foundation decided in 2003 to take forward its work in this field by supporting the establishment of the Communication for Social Change Consortium. The Panos Institute published a major appraisal of communication programming entitled *Missing the message: 20 years of learning from HIV/AIDS* – the report has been downloaded more than 100,000 times from the Panos website, indicating a massive interest in the field. Dozens of other examples exist of a move towards more social change approaches to communication in relation to HIV by a broad spectrum of organizations.

Despite this, there remains a significant sense of strategic confusion related to HIV communication. Much of the debate at the last Roundtable focused on the need for long-term strategies which integrated both behaviour and social change approaches, and a shift towards developing communication strategies that provide people with a voice as well as sending them a message. While there are important statements and expressions of intention by funding agencies, there is only occasional evidence that funding patterns and expenditure of resources have decisively altered to reflect this shift.

Recent intense discussions at the XV International Conference on AIDS in Bangkok on the US government's insistence that its funds be focused on promoting an ABC approach (abstinence, being faithful, using a condom) demonstrated the continued disagreement on the most effective prevention and communication approaches to HIV/AIDS.

There has nevertheless clearly been a significant change of emphasis in the discourse on communication strategies related to HIV/AIDS, a shift clearly reflected in a new Dfid strategy on HIV/AIDS published in July 2004.

"Mass media campaigns, using appropriate communication strategies and locally appropriate idioms, are an essential element [of our strategy]. Top-down information campaigns are rarely as effective as more inter-active media such as soap opera and theatre, where complex issues and differing views and perspectives can be

[4] *Communication for Development Roundtable Report: Focus on HIV/AIDS Communication and Evaluation*, UNFPA, UNESCO, Rockefeller Foundation, Panos, 2002

fully explored and public debate encouraged …. Behaviour change, and other communication programmes, supported by a positive policy environment, can be an effective part of HIV control strategies and should be properly integrated into national HIV/AIDS control programmes. They need a coordinated approach to communication involving government, local and national media and civil society." [5]

1.3.2. ARVs and an integrated communication approach

HIV/AIDS strategies themselves have shifted strongly over the last two years with the availability of substantially more resources, and the rapid development and falls in prices of anti-retroviral treatments (ARVs). The decisive shift in focus to providing treatment for the millions infected with the virus, exemplified by WHO's 3 X 5 initiative (providing ARVs to three million people by the end of 2005) has led to some concerns within the communication community of a remedicalization of the AIDS pandemic and a deprioritization of communication and prevention strategies.

WHO itself however has emphasized strongly the importance of an integrated approach bringing together both treatment and prevention, and a set of communication strategies that can promote both behavioural and social change. In May 2004, WHO and UNAIDS co-hosted a major consultation of international agencies and developing country communication experts focused on producing an integrated communication strategy.

Even as the issue of treatment provision increasingly dominates the response to HIV/AIDS, informing and empowering people affected by HIV/AIDS remains the principal challenge in slowing the spread of the virus. A central argument stressed in the WHO/UNAIDS meeting for increasing treatment provision is the opportunity it also presents for communication and prevention (especially by normalizing and de-stigmatizing the disease, by providing an incentive for people to know their status and by providing a catalyst for in-country civil society and advocacy action around HIV/AIDS and allied issues). The report, *HIV/AIDS Communication and Treatment Scale-Up: Promoting civil society ownership and integrated approaches to communication,*[6] is expected to available at the Roundtable.

1.3.3. Who is coordinating the HIV/AIDS communication response?

An increasingly urgent issue for communication practitioners and thinkers on HIV/AIDS, when change is so rapid and debate so intense around different communication and prevention approaches, is that there is so little coordination internationally of communication approaches. There has been very limited coordination capacity on communication within UNAIDS for several years, and coordination capacities of other UN bodies on HIV/AIDS have also been reduced at headquarters level. Many important lessons of communication have been learned over 20 years in the response to HIV/AIDS, but these lessons are arguably not being applied as well as they could because there exists so little focus on communication coordination.

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[5] Taking Action: the UK's strategy for tackling HIV/AIDS in the developing world, Dfid, July 2004 (www.dfid.gov.uk)

[6] Published by WHO and Panos

2. THE MEDIA AND COMMUNICATION ENVIRONMENT

2.1. Information and communication technologies

2.1.1. The World Summit

The paper prepared for the 2001 Roundtable focused heavily on the increasing international attention being given to the potential of ICTs in development, highlighting in particular international reports, initiatives and meetings.

These included the UNDP Human Development Report of 2001, the Global Knowledge Conference in Kuala Lumpur in 2000 and subsequent action plan, the G8 DOT Force (Digital Opportunities Task Force) and the UN ICT Task Force. The Millennium Development Goals make a specific reference to ICTs, committing the international community, "In cooperation with the private sector, [to] make available the benefits of new technologies—especially information and communication technologies."

The most important event since the last Roundtable – and perhaps the largest meeting ever held on communication and development – was the World Summit on the Information Society (WSIS) held in December 2003. WSIS, and its preparatory committee meetings, created an opportunity for a major debate on the role of information and communication technologies in tackling poverty. The greatest challenge for the Summit, according to the official declaration, was to "harness the potential of information and communication technology to promote the development goals of the Millennium Declaration."

WSIS was a major event bringing together more than 11,000 people and it was preceded by three preparatory committee meetings and an intercessional meeting, five regional conferences and a series of other parallel meetings. The preparatory process to the Summit was characterized a strong engagement from developing countries, but the meeting suffered from a series of constraints.

The first was the credibility of the Summit process itself among important potential stakeholders, particularly donors and private sector organizations. The Summit itself (with particularly important support from the Swiss Development Cooperation agency) attracted a large number of people, many from developing countries, and consisted of a remarkable exhibition of innovation in using ICTs in the public interest and alleviating poverty, and a high energy series of parallel meetings (including the World Electronic Media Forum). But while the Summit resulted in a formal declaration and the adoption of a 7,000 word plan of action, criticisms were made that the official declaration amounted to a lowest common denominator of agreement among the participating parties.

Pre-summit debates were often preoccupied with issues of protecting existing freedoms, particularly on content and media rather than decisively moving the field forward. An attempt to create a new Digital Solidarity Fund received a lukewarm response from donors and the Summit received little international public attention compared to similar UN summits. The whole concept of an "information society", defined principally in technological rather than social terms, remains contentious. A second stage of the summit process is to be held in Tunis in 2005. While the plan of action from the Geneva process is shaping the work of organizations such as the International Telecommunication Union, there is limited evidence that the conclusions of the Summit have decisively influenced broader development policy. The engagement of the private sector in the WSIS process was very limited.

Question marks surround the extent to which the declaration of the WSIS represents a fundamental breakthrough and clear multi-stakeholder consensus. The critical ingredients for the success and credibility of global policy processes, particularly a

dynamic interplay between government, private and civil society sectors, is lacking, and limited concrete consensus exists among governments, particularly between Northern and Southern governments.

In principle a major two stage summit process sponsored by the United Nations whose theme is the global information society might be expected to dominate, or at least substantially influence, the agendas and debates of all organizations focused on communication for development, but there is little evidence that this is currently happening.

Key Recommendations and Conclusions from the Official Declaration of the World Summit of the Information Society, 2003

1. The Declaration recognizes that ICTs are an essential foundation for an inclusive Information Society and embraces the idea of universal, accessible, equitable and affordable ICT infrastructure and services as a key goal of all stakeholders that will help build it.
2. Boosting trust and confidence in ICTs including information and network security, authentication, privacy and consumer protection have been underscored as a prerequisite for the development of the Information Society.
3. ICTs are also important tools for good governance. The Declaration stresses the need to create an enabling environment at the national and international level based on the rule of law with a supportive, transparent, pro-competitive, technologically neutral and predictable policy and regulatory framework.
4. If universal access is the foundation of a true Information Society, capacity building is its motor. The Declaration acknowledges that only by inspiring and educating populations unfamiliar with the Internet and its powerful applications will the fruit of universal access ripen.
5. They also recognize that resources must be channeled to marginalized and vulnerable groups, to ensure adoption and empower them.
6. Indeed, the Declaration reaffirms the universality and indivisibility of all human rights as fundamental freedoms in the Information Society, along with democracy and good governance.
7. On the question of Intellectual Property, the Declaration underlines the importance of both encouraging innovation and creativity and the need to share knowledge to spur such innovation and creativity.
8. Key principles also include the respect for cultural and linguistic diversity as well as tradition and religion. On the Internet in particular, that translates to multilingual, diverse and culturally appropriate content.
9. As for Internet management, involving all stakeholders and intergovernmental organizations to address both technical and public policy issues has been underscored. But, overall, the global Internet governance issue was too complex to resolve in detail. Agreement was therefore reached to set up an open and inclusive working group on Internet governance to investigate and make proposals for action prior to the second phase of the Summit in 2005.
10. The principles of freedom of the press, independence, pluralism and media diversity are also upheld.
11. And finally, the Declaration expresses an unconditional support and commitment to close the Digital Divide through international cooperation among all stakeholders.

From WSIS website

The second major constraint facing the Summit process was the debate over the engagement of civil society itself, with increasing frustration felt by civil society organizations at the lack of access to and interaction with the governmental process. In the end, civil society organizations produced their own declaration from the Summit[7] stating that after engaging for two years in the preparatory process to the Summit that "our voices and the general interest we collectively expressed are not adequately reflected in the Summit documents."

A third set of debates, which divided civil society, centred on the question of communication rights and demonstrated the continuing difficulties of holding formal debates over the roles and responsibilities of the modern media. This is described in more detail in Section 2.1.4.

2.1.2. ICTs: How wide is the divide?

The digital divide, the main issue designed to be addressed by WSIS, remains stark but its character is changing. According to a recent report from the ITU,[8] "sub-Saharan Africa has about 10 percent of the world's population (626 million) but 0.2 percent of the world's one billion telephone lines. Comparing this to all low income countries (home to 50 percent of the world's population but only 10 percent of its telephone lines), the penetration of phone lines in sub-Saharan Africa is about five times less that than in the average low income countries ... fifty percent of the available lines are concentrated in capital cities where only about 10 percent of the population lives."

The same report however suggests a little more optimism in moving towards the MDG on ICTs. "ICTs can alleviate poverty, improve the delivery of education and health care, make governments more accessible and accountable to the people and much more." Target 18 of Goal 8 [of the MDGs] calls upon the Declaration's adherents to, *"in cooperation with private sector make available the benefits of new technologies, specifically information and communications ..."*

Of all the different MDG targets, number 18 is the most open-ended (raising the questions of which ICTs should be made available, to whom and by when), but it is also the one where most progress was made during the 1990s. "All of the developing sub-regions of the world have grown their fixed and mobile telephone networks (total teledensity) to greater extent since 1990 than the entire period before that date", says the report.

The spread of mobile telephony has been extraordinarily rapid. In Uganda, the number of mobile phone users has multiplied 131 times in six years – although most of this growth has been in urban areas.[9] Taking Africa as a whole, last year more than 13 million people were added to the mobile phone network. The 2003 World Telecommunication Development Report of the ITU also argues that existing statistics almost certainly underestimate access to both mobile telephony and Internet in developing countries and new surveying techniques are suggesting substantially greater access to new technologies than had previously been supposed.

"Most references to the digital divide and the information society revolve around access to the Internet. Yet it is remarkable how little we know about the true

[7] This declaration, together with the formal Summit declaration, can be found at www.itu.int/wsis.

[8] World Telecommunication Development Report, ITU, 2003

[9] *Completing the revolution: the challenge of rural telephony in Africa*, by Murali Shanmugevelan and Kitty Warnock, Panos, 2004

extent of Internet access, particularly in developing countries … A number of other countries that have started to carry out surveys have found that they had hitherto been underestimating the number of people who access the Internet. An Internet survey carried out in Jamaica in January 2003, for example, found that there were almost 675,000 users in the country, more than twice the figure suggested by previous estimates. A similar phenomenon occurred in Peru, with a November 2000 survey finding twice as many Internet users in the capital (Lima) alone, than had been previously estimated for the entire country (Figure 2.3). Surprisingly perhaps, these findings suggest that the digital divide may not be as wide in some places as is assumed."

The same report also argues that "radios increasingly fall into the category of having achieved universal service … Televisions too are on the way to being ubiquitous in many countries. The biggest stumbling block to penetration of these ICTs in the lowest income nations appears to be electricity." [10]

However, there is a very long way to go for new ICTs to even begin to approach a level of universal service or access. Even the radio remains a minority medium in some countries. The Hoot website in India,[11] a respected and often irreverent commentator on media and communication issues in the country, claimed recently that:

"Using data from Census 2001, a survey concludes that India may be shining but 81 percent of rural households in our country still cannot afford to buy even a black and white television set. And 68 percent of rural households do not own a radio or transistor set. In all the states in the east and northeast India rural television ownership is very low. In West Bengal one out of seven and in Orissa one out of ten rural households are lucky to possess a television set. In Bihar just one out of 18 rural households has managed to buy a television set. So while TV may give a lot of coverage at election time, millions of voters will not see any of it." [12]

Considerable excitement and interest continues to surround the potential of ICTs. This large and complex field is the subject of many conferences and reports – strategic trends are accordingly difficult to summarize but a number have emerged:

- The steady dissolution of the distinction between old and new technologies: increasingly the focus of debate on ICTs has moved towards assessing the importance of new technologies alongside existing communication technologies, particularly radio, and other communication channels. Development agencies and practitioners on the ground are increasingly assessing the whole range of new and old ICTs in the context of whether they meet the information needs of and provide a voice for the poor, and there is particular focus on the potential synergies between new and old technologies. There are many examples of this approach, but FAO, for example, produced an important book in 2003 on the interaction between radio and new technologies.[13]
- Translating words into action: after an intensive programme of meetings, conferences, action plans and declarations at the international level over the last five years, questions surround the extent to which words are being translated into action. Significant resources have been mobilized for deployment of ICTs and

[10] World Telecommunication Development Report, 2003, ITU

[11] http://www.thehoot.org

[12] The media and the verdict of the election of 2004, Hoot Editorial, 13/5/2004, http://www.thehoot.org/story.asp?storyid=Web210214207237Hoot73925%20PM1176&pn=1&section=S1

[13] *The One to Watch: Radio, New ICTs and interactivity*, Ed: Bruce Girard, FAO and Friedrich Ebert Stiftung, 2003

many donors have prioritized ICTs, but questions remain about the sustainability of many ICT projects, and the connection between action plans and action.

- A growing focus on the broader policy and social environment, and creating a healthy environment for ICTs and other communications to flourish is apparent: this complements approaches to directly invest in specific projects such as telecentres etc.

The digital divide remains real but its character is perhaps beginning to become as much one between rural and urban, and rich and poor within countries as between countries. The bottom line is that interpersonal communication even in some of the poorest countries is proliferating exponentially and both Internet and mobile telephony are contributing to profound social change within countries - perhaps even faster than we thought.

2.1.3. Media in developing countries

The briefing for the last Roundtable[14] focused on the role of the media in some detail. While debates over the impact and potential of new communication technologies and the digital divide have dominated international discourse on communication in the international arena over recent years, another information revolution has been developing. For the almost 3 billion people on the planet who earn less than US$2 a day, it is the structure, ownership, content and reach of the media that is having the most profound impact. The most important trends shaping the media landscape over the last five years have been threefold.[15]

First, a thoroughgoing liberalization and commercialization of media over the last decade in many parts of the world has led to a much more democratic, dynamic, crowded and complex media landscape. This is opening up new spaces for public discourse and civic engagement, particularly in the field of radio; and to a more commercial, advertising-driven media where information and power divides within developing countries and between rich and poor, urban and rural are growing.

Second, growing concentration of media ownership - at the global, regional and national levels - is squeezing out independent media players and threatening to replace government-controlled concentration of media power with a commercial and political one.

Third, developing countries are increasingly reliant on powerful northern news providers, such as the British Broadcasting Corporation (BBC), Reuters and Cable News Network (CNN), for their international news and information, particularly on stories of globalization, trade and international politics In newly democratic countries in the South, and particularly within civil society, there is growing frustration at the Southern media's dependence on what are perceived to be partial, biased or at least fundamentally Northern-centric news organizations for international coverage and the setting of news agendas.

This is a complex, contradictory revolution marking an extraordinary transformation over little more than a decade. New freedoms, a blossoming of public debate, a resurgent community radio movement, a proliferation of channels and titles across

[14] http://www.comminit.com/roundtable2

[15] These arguments have been substantially expanded by this author and others in the Global Civil Society Yearbook 2002 published by the London School of Economics (www.lse.ac.uk/Depts/global/Yearbook) and updated more recently in *The other information revolution: media and empowerment in developing countries,* by James Deane with Fackson Banda, Kunda Dixit, Njonjo Mue and Silvio Waisbord in *Communicating in the Information Society, Ed Bruce Girard and Sean O'Siochru,* UNRISD, 2003: http://www.unrisd.org/unrisd/website/document.nsf/(httpPublications)/5DCA28E932BB8CFDC1256E240029A075?OpenDocument

all media, a dynamic interplay between old and new technologies, the increasingly globalized nature of information and communication industries and connectivities and the loosening of government control over information have all characterized this revolution.

Despite this, when viewed from the perspective of communication for development, a growing crisis may be emerging marked by a collapse of public interest media. The new market-driven media has brought innovation, dynamism and often greatly enhanced democratic debate. But evidence is growing that, as competition intensifies, content is increasingly being shaped by the demands of advertisers and sponsors, and an increasingly intense focus on profitability. The result is a more urban-biased, consumer-oriented media which has diminishing interest in or concern for people living in poverty.

Uganda provides an example of the complexities of this revolution. Little more than a decade ago the country had two radio stations both based in Kampala. Today it has almost 100, mostly commercial, FM radio stations across the country. Talk shows and particularly the Ekimeeza – hugely popular talk shows where as many as 400 people gather to take part in broadcast debates – have provided some of the most compelling programming. However, early enthusiasm for these developments is being tempered by growing fears of both political and economic interference. Newspaper editors have come under increasing pressure from the government when publishing unpopular stories, a draconian new anti terrorism law was passed in the wake of September 11 making it a capital offence to publish material deemed to be promoting terrorism, and earlier this year several radio stations suspended broadcasting when the government clamped down on non-payment of license fees. Moreover, overall there is an increasing focus across the sector on profitability.

Communication for development organizations and practitioners are beginning to adjust to the new environment. DJs are becoming as important as journalists in bringing development issues to public attention. Indeed, journalism as a profession is dramatically changing and concepts such as "development journalism" are arguably under siege. Journalists themselves who want to explore and investigate development stories - particularly issues affecting those from outside the capital - are finding it more and more difficult to get either resources or attention from their editors.

Never a rewarding and always a difficult profession, investigative journalism is arguably becoming steadily less attractive and there is decreasing inclination among many journalists to focus on development issues since this is a poor career move. With no paying market for poverty-related content, incentives for journalists, editors, publishers and owners to prioritize it are also declining. Journalism training is also under pressure, particularly with a public interest remit, and journalism schools in some developing countries are finding that graduates are as often snapped up by the public relations and advertising industries as they are by news organizations.

The former state monopoly broadcasters and media organizations, which retain the greatest capacity to reach rural and marginalized populations, are facing intense competition from commercial organizations as governments reduce budgets. As a consequence many are in crisis. As well as a shift to more commercial content, there are reports of cutting of language services, particularly minority languages, and of transmitter capacity. In this sense the digital divide is being reflected in a much broader, deeper and perhaps more fundamental information divide between urban and rural, rich and poor.

Communication strategies are changing in other ways too. A decade ago it was often possible to reach an entire population through a partnership with one monopoly government broadcaster, enabling the widespread dissemination of messages on development issues, as well as soap operas and agricultural extension programmes.

An increasingly crowded and fragmented media environment, together with the cuts in budgets and other pressures facing many former monopoly broadcasters, mean that such dissemination is more difficult.

Many development agencies are responding to the new commercialized media market by actively entering it, and some of the most consistent customers for some radio stations are development organizations and donors. Income from development organizations – in the form of payment for spots or sponsorship of programmes - is becoming an increasingly critical component of some broadcast organizations' income, but fears are growing that an artificial market is being created and that public are receiving information determined by whatever organization – development or otherwise - has the most money, rather than through any journalistic or public interest criteria.

The two revolutions – in ICTs and in media – are offering important new opportunities as well as new and complex challenges. Above all else, the new environment demands a new approach to communication for development, one that reaffirms and builds on long-held principles of participatory communication advocated by FAO, but also adapts to and develops new approaches which take full advantage of the opportunities of the new communication environment. In communication environments that are so increasingly networked, communication practitioners are decreasingly focused on disseminating messages and increasingly focused on catalyzing public and private dialogue so that communities can act collectively to develop solutions to their own problems.

The Changing Communication Environment	
Traditional	**New**
• Vertical communication – from government to people	• Horizontal communication – from people to people
• Unipolar communication systems	• Communication networks
• Few information sources	• Many information sources
• Easy to control – for good (generating accurate information to large numbers of people) and ill (government control and censorship)	• Difficult to control – for good (more debate, increased voice, increased trust) and ill (more complex, issues of accuracy)
• Send a message	• Ask a question

2.1.4. Media, freedom and poverty: A difficult debate

The trends and issues highlighted here over the relationship between media and the public interest, including in developing countries, are poorly researched and receive little attention in discussions on communication for development.

The role of the media in the modern information society received scant attention at the World Summit on the Information Society compared to new communication technologies. This is unsurprising given the sensitivities and concerns both of media and a broad cross section of civil society of governmental interference in the media. Debates over the connection between media and poverty seem unlikely to progress substantially within the context of the next phase of the WSIS, and the opportunities of drawing the mainstream media itself into such a debate appear slim.

However if, as this paper suggests, some of the most urgent issues facing the communication for development field is the growing uninterest of much mainstream media in issues of poverty (a phenomenon common both to developing and industrialized countries), new ways of engaging in a dialogue with mainstream media organizations are increasingly urgent.

The long-standing problems associated with the role of the media in relation to development surfaced prominently in the approach to WSIS, as many information and communication NGOs had come together with a central vision "grounded in the Right to Communicate, as a means to enhance human rights and to strengthen the social, economic and cultural lives of people and communities."

This grouping, Communication Rights in the Information Society (CRIS), was highly effective both in assembling a large number of civil society and media advocacy organizations working on issues of information, and in engaging positively and highly efficiently in the WSIS preparatory process. However, criticisms were expressed by some media freedom organizations, most notably by the World Press Freedom Committee and Article IXX, over some articulations of this right to communicate. They feared that successful establishment of such a right could lead to the imposition of controls over an independent media (further information can be found at http://www.crisinfo.org; http://www.article19.org/docimages/1512.doc and a particularly strongly worded attack by the World Press Freedom Committee published on the US State Department website, http://www.state.gov/e/eb/rls/othr/20101.htm).

The sometimes bitter debates, redolent of those of the New World Information and Communication Order in the 1980s, exemplified the continuing challenge of opening up a serious international public debate of the role of the media in the 21st Century. While social advocacy organizations are increasingly concerned with the power and lack of accountability of concentrated and consumer oriented media, media freedom organizations remain concerned about any formal attempt to erode hard-won media freedoms.[16]

The intimate connection between public discourse through the media and poverty has been highlighted for many years, but open and constructive discussion of this and other issues of social concern has often proved difficult. The rapidly changing communication environments in some of the poorest countries and the growing importance of communication for alleviating poverty suggest that new ways of discussing these issues, with the central inclusion of mainstream media and affiliated organizations, is becoming increasingly urgent.[17] Currently however, credible fora which can bring together mainstream, alternative and social advocacy organizations, as well as government and development decision-makers on these issues are in short supply. Given the experience over the years such a debate would almost certainly need to be led by non governmental (particularly media) actors.

3. THE CONTRADICTORY FUNDING PICTURE

As this paper has sought to indicate, there is no shortage of compelling arguments why communication for development is becoming increasingly critical to the MDGs. Trends on bilateral and multilateral policy on communication have, with important exceptions, rarely been more difficult to discern.

[16] In an attempt to reconcile some of these arguments, the Panos Insitute organized a symposium on *Media, Freedom and Poverty* at the Rockefeller Foundation's Bellagio conference centre in October 2003 consisting of people expressing different perspectives on these issues. A statement from the meeting, one of a series focused on issues relevant to communication for social change, reflected a new level of consensus on this issue: http://www.panos.org.uk/files/Bellagio%20statement%20on%20media%20freedom%20and%20poverty1.doc.

[17] Such issues have been highlighted, particularly in relation to the promotion of alternative media, at the Our Media Conferences, most recently held in Porto Alegre in July 2004. More details can be found at http://www.ourmedianet.org.

Those organizations which have gone through a detailed strategic discussion on the role of communication in development have tended to increase both funding and staffing for it. The UK Department for International Development (DFID) is the most prominent example of this. Five years ago, DFID had little historical interest or expertise in communication for development. After a series of discussions and reviews, it came to a strategic conclusion that the role of communication had become essential to its overall development objectives.[18]

DFID has substantially increased its investment in the area, has sought to work in structured partnerships with other donors, has substantially increased its staffing and in-house expertise and has supported and helped initiate a series of large scale programmes including the Catalysing Access to Information and Communication Technologies in Africa (CATIA) programme and Building Communication Opportunities. Perhaps most importantly it has substantially reorganized its internal structure to reflect both the importance of and the multi-sectoral character of communication for development programming and support. Creating an Information and Communication for Development (ICD) team (a deliberate shift away from the earlier ICT or technology focused) team, the organization brings together in one structure expertise on ICT and media programme support, HIV/AIDS communication, knowledge management, research and external communication functions. DFID is developing partnerships with other donors to support information and communication for development activities.

However, officials in many other bilateral organizations, particularly in Europe, highlight a rapidly diminishing strategic engagement in communication with several reports of decreases in funding and policy confusion in relation to communication[19]. There are several reasons for this:

- Diminishing budgets. Budgets are under increasing pressure, including for example in the Netherlands Foreign Ministry, one of the most prominent and experienced supporters of media and communication in development, where overall development budgets have been substantially reduced.[20]
- Budget support in countries and reduction in internationally allocated budgets: There has been a rapid shift among many donors toward spending money through budget support to governments and through country level missions. This has often meant that strategic policy on issues such as communication, and global spending on communication, has diminished, sometimes very rapidly. Some of the Nordic governments in particular, all of whom have been among the most prominent, sustained and pioneering donors of media and communication for more than 20 years appear to be substantially reducing their commitment in the field. In Sida for example, many programmes have been reduced in 2004 as a result of a reallocation of budgets from global to country missions.
- A diminishing interest in communication for development. There is little evidence of this, with many organizations attaching a new priority to communication for

[18] See in particular *The significance of ICTs*

[19] These conclusions are derived from a presentation by the author at a Communication Initiative meeting of November 2003 based on interviews and informal discussions with bilateral staff. They are not the product of a rigorous survey and should not be taken to reflect the official position of any of the donors mentioned. Descriptions of policy are those made by the author, not necessarily those of the donors concerned.

[20] However, an overall reduction in development assistance budgets can no longer be seen as the generic trend that was established during the 1990s, particularly since the 2002 Financing for Development Summit in Monterrey, Mexico where donors pledged an additional US$16 billion in development assistance. See Reality of Aid report 2004 for more detailed mapping of trends of development assistance over the last decade, including severe criticism that neither the amount of aid nor development policies is sufficient to meet the Millennium Development Goals. http://www.realityofaid.org.

development. Reductions in funding to this field do not appear to have come about as a result of any considered strategic decision making related specifically to communication for development.

- Results-based management. There is a trend towards results-based management and a growing need to highlight benefits of development assistance for the spending country. Communication interventions can take a long time to achieve substantial and sustained benefits and these are often difficult to quantify. However, as several reports have suggested over recent years,[21] impact measured over short (three to five year) project timelines is often not sustained in development projects, particularly in communication, whereas sustained impact on poverty over a period of 10 or 15 years can sometimes only be demonstrated through evaluation over that time. This creates problems for results-based management which is, according to some critics (including within donor organizations) sometimes more interested in products and outputs measurable over the project cycle than it is with lasting impact.
- Rapid staff turnover within many development agencies. Communication is a complex field in need of clear, long-term strategies and strong institutional memory. Policy is often weakened by rapid staff turnover.
- While donor organizations have become increasingly committed to listening to the voices of the poor, there can still be a real reluctance to surrender control of the communication process.

Part of the solution to these problems lies with the communication community, particularly the need for a clearer articulation of why communication is essential to meeting the MDGs, and for more effective evaluation mechanisms appropriate to new communication environments.

Nevertheless, given the institutional expertise of many European bilateral agencies and the growing recognition of the relevance of communication to meeting today's challenges it is incumbent on major donors to undertake a much clearer strategic analysis of communication for development issues.

Multilateral agency communication strategies and funding will be discussed at the Roundtable meeting.

4. CONCLUSION: A FRESH URGENCY IS NEEDED

Recent debates, and much of this paper, have been preoccupied with different models of and approaches to communication such as diffusion, participation and advocacy.

There is increasing evidence that communication programmes that tend to attract the most resources – particularly those that promise to deliver concrete, quantifiable changes in individual behaviours over limited time frames – are too often unsustainable, insufficiently rooted in the cultures in which they operate, have limited lasting impact and run up against more fundamental social barriers to change. On the other hand, more participatory, bottom-up models of social change communication sometimes fail to attract more resources because impact is so difficult to evaluate in the short term and because they are often difficult to programme at scale.

Such debates over different approaches to communication have been taking place for some time. The Roundtable process has concluded repeatedly that communication for development should be rooted in and dominated by the perspectives of people who have most to win or lose from the development process. The increasingly complex and horizontal communication environments in which development strategies

[21] See Missing the Message for example, ibid.

are currently deployed, the ever increasing focus on the importance of ownership, as well as the failures of mainly vertical and top-down communication strategies – particularly in substantially mitigating the HIV/AIDS pandemic - all strongly reinforce this perspective.

The increasing marginalization of the poor from public discourse at a time when such voices are so critical, the pivotal role of communication in conflict, the enormity of the HIV/AIDS and other public health catastrophes, the importance of creating more knowledge-based societies, the challenges of making globalization work for the poor – these and other communication challenges prompt fundamental questions: Why does communication still attract comparatively few resources? Why are resources mainly made available for short–term, difficult-to-sustain interventions? And last, but not least, how well equipped is the communication for development community to answer a simple question – what really works well now?

There is mounting evidence that a huge amount works well now. As the Communication Initiative website demonstrates[22] there are an extraordinary range and number of high quality and innovative communication interventions being implemented across the world by thousands of organizations. This is one of the most dynamic fields in the development arena. The problem, in terms of investment and funding policy, is its very richness; the true impact of the best communication is rooted in its character as a complex mosaic of diverse local interventions.

One of the continuing central challenges is to find more effective ways of directing resources to such communication in ways that it can be supported even by large organizations at scale.[23] Communication for development suffers because of the difficulties of replication and taking to scale, and there have been only a limited number of attempts to review the best of communication for development experiences and apply the lessons and best practices more systematically.

Linked and underpinning all this is the continuing need (and resources) to develop better evaluation mechanisms and tools (including participatory evaluation) to assess the real impact of the best communication without undermining the central value of the participatory communication approach.

There has probably never been a greater number of communication for development activities being carried out across the world than now. The arguments for the importance of communication for development have never been more compelling. Despite this, and with important exceptions, leadership and strategic cohesion at the international level are not keeping pace with communication for development in meeting the MDGs.

[22] http://www.comminit.com

[23] Soul City is one example of this: http://www.soulcity.org.za

Communication for development in research, extension and education

Niels Röling (PhD)

PREAMBLE

(1) Innovation can most usefully be seen as an outcome from concerted action or synergy among multiple actors or stakeholders in some theatre of innovation. Development Communication seeks to understand, foment, facilitate and monitor the process by which a set of actors moves towards synergy. It focuses on the participatory definition of the contours of the theatre, the composition of the actors in it, their understanding of their complementarity and interdependence, their linkages, interaction, conflicts, negotiated agreements and collaboration.

(2) It is *not* useful to consider innovation the outcome of transfer or delivery of results of scientific research to 'ultimate users' or farmers. Hence it is *not* useful to consider Development Communication as the tool to improve the delivery mechanism.

I have devoted a good part of my professional life to making these two points, so far without much success. Even my AKIS concept gets retranslated in terms of the linear model. Is this a unique case of the regiment being out of step with the single soldier, or have I wasted my time? Please make up your mind on the basis of the arguments I present below.

INTRODUCTION

The very title of my paper could mean different things to different people. Take a student in a US Land Grant University; some of us have been in that position. To this person, Research, Extension and Education reflect the Land Grant ideology that regards the integration of these tasks, coupled to independence from policy, as the source of success and power, if not superiority of American universities, and the secret behind the efficiency of American agriculture. For the average agriculturalist in Europe, Research and Extension refer to services that have been the responsibility of the state but are now increasingly privatised. They have been widely used as policy tools to bolster agricultural productivity and the competitive position of national agricultural industries. The word Education invokes qualification and competence building especially of farmers and their sons (Mulder, 2004). Members of the IPM Farmer Field School (FFS) movement, and we might well have some of them in our midst, could, upon seeing the title, think of the lack of impact of Research on FFS, and of the fight with the World Bank about whether FFS represent a 'fiscally unsustainable form of extension' (Quizon et al et al, 2000), or an empowering and transformational form of adult education (e.g., Pontius et al, 2002; Eveleens, et al, in press[1]). In most developing

[1] Unfortunately, the Eveleens et al overview of the history of IPM in Asia which gives voice to many of the key players in that remarkable social development has for two years been on someone's desk in FAO and is losing relevance.

countries, finally, the words Research, Extension and Education are not necessary linked. Research and Extension usually are the responsibilities of different directorates of the Ministry of Agriculture, while Education is the responsibility of another Ministry. Thoughts would not immediately turn to *agricultural* education. What the three have in common is not immediately clear.

In all, my subject is like the proverbial word 'dog'. Depending upon the experience of the sense maker, 'dog' can elicit meanings all the way from a loveable, cuddly 'best friend' to a fearsome, bloodthirsty, growling police weapon. But it is good fishing in murky waters. Nothing better than a Babylonian confusion to promote one's own view.

The Agricultural Knowledge and Information System (AKIS)

In my perspective, my subject is AKIS, the Agricultural Knowledge and Information System (Röling, 1988, Röling and Wagemakers, 1998), a concept that I developed based on the work of Nagel (1980) and Swanson and Peterson (1989, Swanson, 1990), especially using the Soft Systems notion of Checkland (1981 and with Scholes, 1990). Engel and Salomon (1997) played key roles in further elaborating the concept and in developing a powerful methodology called RAAKS based on it.

AKIS has struck a cord. The notion has been widely adopted… again with very different meanings. A brief review of some of them allows me to emphasise what I consider unhelpful developments of the concept.

For McDowell (2004 and 2001) a professor at Virginia Tech (USA), AKIS 'generates and conveys the new knowledge needed to address problems affecting agriculture'. I would no longer define AKIS as if it were an actor itself with an agency of its own, for it is people, not systems that have agency (Röling and Leeuwis, 2001). How would an AKIS know what the problems in agriculture are?

Other interesting alternative definitions are presented in an overview by ISNAR (Chema et al, 2003). FAO and the World Bank (2000) define AKIS as follows:

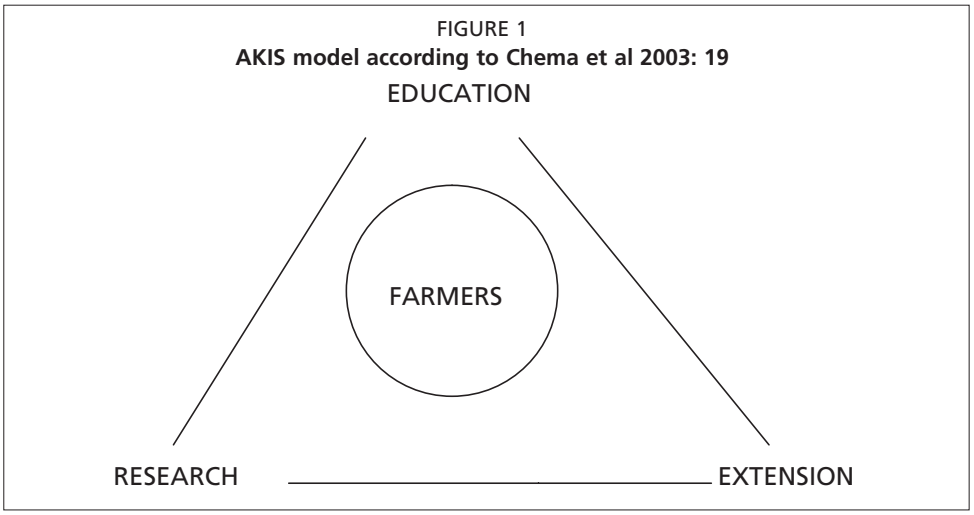
> 'An AKIS links people and institutions to promote mutual learning and generate, share and utilise agriculture-related technology, knowledge and information. The system integrates farmers, agricultural educators, researchers and extension personnel to harness knowledge and information from various sources for better farming and improved livelihoods'.

This definition conforms to my original intention. It considers the AKIS as a system made up of people. But the definition also has two aspects that I no longer agree with, reason why I am glad that my 1988 book is out of print. (1) In the definition by FAO and the World Bank, the components of the system, i.e. farmers, educators, researchers and extension personnel, are *given*. I have learned that, depending upon the situation the key players in an AKIS can include businessmen, informal leaders, priests, and many others. Defining the components *a priori* creates important blind spots before one has even started and takes away from the need to come to an agreements as to who the important players are in 'the theatre of innovation' (Engel, 1995). Defining the components *a priori* removes the need for stakeholder analysis. (2) In the definition by FAO and the World Bank, the AKIS is considered an entity that exists in the world. As will become clear below, for me the key point about the concept of AKIS is that it holds promise that a set of complementary actors gel into a synergistic system once they begin to see themselves as a system. Making that happen is a key role for development communicators. But I am running ahead of my story.

Chema et al (2003) themselves provide the AKIS model presented in Figure 1. This model again pre-determines the components of the system. But they go further, and

emphasise the *national character* of the AKIS in making a distinction between the National Agricultural Research System (NARS), the AKIS and the National System for Innovation (NSI).

FIGURE 1
AKIS model according to Chema et al 2003: 19

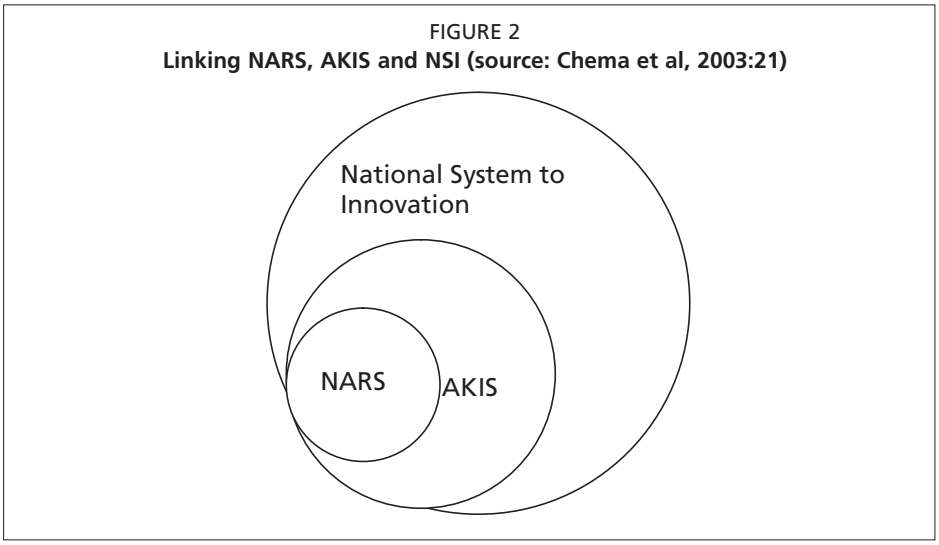


The NSI is defined as:

> '… that set of distinct institutions which jointly and individually contribute to the development and diffusion of new technologies and which provides the framework within which governments form and implement policies to influence the innovation process. As such it is a system of interconnected institutions to create, store and transfer the knowledge, skills and artefacts, which define news technologies. The element of nationality follows not only from the domain of technology policy but from elements of shared language and culture which bind the system together, and from the national focus of other policies, laws and regulations which condition the innovative environment' (Metcalfe, 1995).

Figure 2 shows the presumed relationship among NARS, AKIS and NSI. Note that 'the NARS is no longer seen as the epicentre of innovation but one of a variety of sources' (Chema et al, 2003).

FIGURE 2
Linking NARS, AKIS and NSI (source: Chema et al, 2003:21)



If one thinks of the AKIS in terms of research, extension and education and limited to the generation of technical innovations, it makes sense to distinguish it from a NSI. Anyone familiar with the West African scene, for example, would agree that with their *given* knowledge and technology, local farmers would be able to greatly increase their productivity if they were given an opportunity to sell their products at a reasonable price (Hounkonnou, 2001; Röling et al, in press). Hence knowledge, information and even tested technologies are not in the minimum; what is lacking are the institutions, marketing chains and conducive policies at the scale level above the farm. I would agree, therefore, that achieving innovation requires more than an AKIS, if AKIS is defined as a *national* system that *exists in the real world*, is *composed of given actor categories* (farmers, research, extension and education), and serves to generate *technical* knowledge. Point is, I do not agree with any of these assumptions about the AKIS.

Why is an AKIS not a National system?

An AKIS, in my mind, does not stop at national boundaries. In our era of globalisation, multi-national companies peddle their technologies across the globe, the production of BT cotton in China has undermined small farmers' mainstay in West Africa, and the global treadmill, of which more later, ensures that many of the world's farmers operate on a global diffusion curve (Rogers, 1995). This does not mean that local, regional or national actors could not gel into an effective AKIS. What it does mean is that the boundaries of an AKIS cannot be considered as given. Like, the boundaries of any soft system, they are arbitrary and depend on the configuration of actors in a given 'theatre of innovation' (Engel, 1995).

Not Existing in the Real World. Here we come to a difficult aspect of AKIS that I nevertheless consider crucial, if we are to use Soft Systems Thinking (Checkland, 1981) for understanding and enhancing AKIS. A system is a construct. One can look at a bunch of elements and processes and usefully consider them a system. One can then reify one's construct and act as if that system really exists, even though it is a figment of one's imagination. That is perhaps useful if the system considered is an automobile or a Cow Pea plant. This position is not useful, however, when we are dealing with sets of linked actors, such as farmers and researchers. In such situations, the effect of systems thinking only emerges *when the actors involved see THEMSELVES as forming a system and are aware of their mutually complementary roles with respect to a synergistic outcome.* This perspective on the AKIS as a *reflexive device* is crucial for effectively looking at the role of development communication, as we shall see.

Why is an AKIS not composed of given actor categories?

Just as the geographical boundary of an AKIS is arbitrary and negotiated, so is the composition of its elements. Who is or is not part depends on the sense making of the actors involved. Their perspectives might be widely different. For example, us men have been reluctant or even resistant to see women farmers as an important element in an AKIS. The example shows that the composition of the AKIS often is contested. We glibly say that 'farmers' are a component of the AKIS. But we all know that farmers are not a homogeneous category, and reaching the hard-to-reach, i.e. effectively making them part of the AKIS, is a task that has largely eluded public sector attempts to alleviate poverty. One cannot *a priori* limit an AKIS to extension agents, agricultural scientists and teachers. In some theatres of innovation, local leaders play a crucial role, in others NGO workers or private companies make indispensable contributions. In all, the composition of the AKIS is arbitrary and must, in the end, depend on agreement as to which categories of actors are required go achieve synergy with respect to supporting innovation in a specific context.

Why is an AKIS not only technical knowledge?

We assume all too easily that development of agriculture is a question of technologies, miracle seeds, fertilisers, chemicals, machinery, natural enemies, ways to enhance Mycorrhiza, and so forth. Without even being aware of it, this thinking in terms of component technical innovations that enhance agricultural productivity deeply prejudices our ability to be open-minded about what is required. In my own part of the world, for example, one of the main problems is that agriculture has become so productive that food is relatively very cheap (less than 10% of the consumer Euro goes to food and beverage of which only a fraction reaches primary producers), that farmers find it hard to maintain a livelihood from agriculture, while the externalisation of the costs of intensive modern agriculture has become intolerable and requires increasingly Draconian legal frameworks to control. In my part of the world, an AKIS is, therefore, not so much about technology to produce more of the same, but about a fundamentally new social contract for agriculture.

My notion of AKIS has to do with networks of multiple stakeholders, with learning and with interaction. It has to do with the way we make sense of the future and of the opportunities that are available. An AKIS *is* not a predefined construct; it emerges from interaction (usually temporary) between actors who mutually complement one another's contributions. The actors are aware of the fact that they form a system and do their best to maintain it. They talk a lot about their system. In my experience it is possible to facilitate the emergence of such an AKIS.

In this broad sense, AKIS has everything to do with innovation. In fact, innovation can be called the emergent property from the interaction of multiple stakeholders who consider themselves as an AKIS and who can play complementary roles with respect to realising the innovative potential of a situation. Facilitating, and creating the framework conditions for, the emergence of AKIS in this sense is the challenge for Development Communication.

With that I close the definition of the area of discourse for this paper. The rest of the paper is designed as follows. First I must, again, spend time on the three interlocking dominant narratives that continue to dominate our area of discourse. It proves extremely hard to get rid of this outdated trio. I will then present by way of example, the context for West African agriculture to show that the three narratives do not apply and that we need an alternative way of approaching agricultural development. I then formulate a number of principles for development communication in research, extension and education. I end with a few conclusions.

1. THREE INTERLOCKING BUT INDESTRUCTIBLE NARRATIVES

Our area of discourse is underpinned by three indestructible narratives that have emerged from the experience in the Mid-Western States of the US. In the early forties, farms in these States became homogeneous populations of small firms, all operating on the same commodity markets, all producing the same products, while they were not, individually, able to affect the price. Therefore it was most rational for them to produce as much as possible against the going price, although the collective effect of this practice is a slight over-production, and given the inelasticity of demand for food, a continuous pressure on farm gate prices. This situation can be called a 'treadmill' (Cochrane, 1958) in which all farmers try to be as efficient as possible and in which they are in fact continuously competing with each other. In these conditions, innovations, such as hybrid maize (Ryan and Gross, 1943), diffuse rapidly (Rogers, 1995), and a relatively small investment in public extension, research and education has a very high rate of return in terms of increased productivity, falling food prices, and reduced employment in agriculture (Evenson et al, 1979). In all, this American experience, after the Second World War replicated across Europe and in Green Revolution areas,

especially in Asia, has in our area of discourse led to the dominance of the following three interlocking and indestructible narratives, which are familiar to most of you:

i. The Diffusion of Innovations (Rogers, 1995);
ii. The Agricultural Treadmill (Cochrane, 1958);
iii. Technology Transfer based in an effective knowledge system (e.g., Havelock, 1986).

1.1. Diffusion of Innovations

This one is perhaps the best-known narrative. The basic notion is that innovations, novel ideas, autonomously diffuse among members of a relatively homogeneous population after their introduction from outside, either through a change agent, through people who straddle the local and external worlds, or through other media. This diffusion process usually starts slowly and then gathers steam, so that the 'diffusion' curve marking the rate of adoption of the innovation by individuals over time typically has the shape of a growth curve. One can distinguish people who adopt fast and people who are slow to follow. Endless studies have been carried out to identify the discriminating characteristics. This has led to a rather circular argument: research shows that 'progressive' farmers (i.e. those with large farm sizes, education, access to outside agencies, etc.) are the ones who are early to adopt. Therefore, extension efforts should focus on these farmers to achieve rapid diffusion. But these farmers were early to adopt partly because extension agents already pay a lot of attention to them. Diffusion studies often have provided the rationale for what can be called 'the progressive farmers strategy'.

The popularity of the diffusion of innovations narrative can be explained by the fact that empirical studies of cases where an innovation diffused to a large proportion of the farmers in a population in a very short time have created an expectation that technologies, once introduced to few farmers through extension and research efforts, will diffuse rapidly on their own and multiply the public sector effort. 'Diffusion works while you sleep'.

At one time, diffusion of innovations research was the most popular form of social science research with literally thousands of surveys of diffusion processes published. And it must be said that it is an exciting area. Many questions arise with respect to such issues as the nature of the individual adoption process, the sources of innovation, collective innovation, diffusion across geographical space, the nature of leadership in innovation processes, diffusion as a creator of inequity, etc. The original American work has been replicated in virtually every country in the world. And when rural sociologists get tired of it, agricultural economists rediscover it and start afresh. The whole narrative has been beautifully written up by Rogers (1995[2]).

Diffusion research has had a tremendously important imprint in our circles. The narrative has reinforced the following assumptions, even if these assumptions have been explicitly rejected by the research. One of the characteristics of a narrative is that, once it has become widely accepted, it become impervious to correction.

1. Innovations come from outside, usually are developed by scientists and then introduced into rural communities, groups of doctors, consumers or other populations. The possibility that innovations emerge locally is not emphasised;
2. Innovations tend to be looked upon as technical component technologies that diffuse on their own, without paying much attention to the farming system into which they are adopted. They are like silver bullets. In actual practice, farmers

[2] This is the last version the author is aware of. But knowing Everett Rogers, there probably is a newer and even better version available by now, and if not, it is about to be published. The basic textbook 'Diffusion of Innovations' has been updated every ten years since 1961.

usually spend a great deal of time on adapting innovations. What is more, the focus on technical innovations that enhance productivity detracts from a focus on system innovations to improve the sustainability of a farming system. Yet innovation in the area of resource management increasingly is becoming a condition for improving rural livelihoods.

3. All adopters are on the same development path, except that some are ahead and others behind. The Dutch rural sociologist Van der Ploeg (1994) has shown that this assumption of a single development path is erroneous. Given the same economic and technological conditions, farmers tend to follow very different development paths. What stands out is diversity and ability to act autonomously.
4. The community in which an innovation diffuses is homogeneous in that all farmers are assumed to benefit from the innovation. In actual practice, innovations tend to be differentially relevant, depending on access to inputs, land, labour, credit, and so on. Adoption of innovations by some might pre-empt others from benefiting.
5. Technical innovation is a good thing. In actual practice, one can imagine situations where innovation is not good at all. For example, the adoption in Europe of hormones to enhance productivity of dairy cows by 10 % would put tremendous pressure on the price of a commodity that is already cheap. It would leave cows with a more miserable life and would mean a sharp drop in the number of farms that are able to survive. Yet, once introduced, a farmer could ill afford not to adopt the technology. And that brings us to the treadmill.

1.2. The Agricultural Treadmill

Table 1 shows briefly how the treadmill works (based on Cochrane 1958):

TABLE 1

Key elements of the Agricultural Treadmill

- Many small farms all produce the same product;
- Because not one of them can affect the price, all will produce as much as possible against the going price;
- A new technology enables innovators to capture a windfall profit;
- After some time, others follow ('diffusion of innovations'(Rogers, 1995));
- Increasing production and/or efficiency drives down prices;
- Those who have not yet adopted the new technology must now do so lest they lose income (price squeeze);
- Those who are too old, sick, poor or indebted to innovate eventually have to leave the scene. Their resources are absorbed by those who make the windfall profits ('scale enlargement').

This is a coherent and well-known story indeed. And policy based on the treadmill has positive outcomes. For one, the advantages of technological innovation in agriculture are passed on to the customer in the form of cheap food. For example, in my country an egg still has the same nominal value as in the sixties. The very structure of agriculture makes it impossible for farmers to hold on to rewards for greater efficiency (Hubert, et al, 2000). Meanwhile, labour is released for work elsewhere. One farmer can now easily feed a hundred people. When the treadmill runs well at the national level in comparison with neighbouring countries, the national agricultural sector improves its competitive position. Furthermore, an important advantage is that speech making farmers do not protest against the treadmill. They only profit from it. A farmer on the treadmill can only make a good living if he is ahead of the pack. Unlike industrial workers, farmers collectively usually do not claim rewards for greater labour

productivity. A final advantage is that the treadmill will continue to work on the basis of relatively small investments in research and extension. These have a high rate of return (Evenson, et al, 1979).

All in all, it is very understandable that policy makers have grasped the treadmill as the fundament for agricultural policy. It represents market forces in optimal form. According to WTO we must work towards a global treadmill. For example, the four million small farmers in Poland must leave the scene quickly so that Polish agriculture can become 'competitive'. A competitive agriculture, that is the key slogan, also for global agriculture.

However, the Treadmill also has a number of negative aspects that are increasingly less acceptable (Table 2).

TABLE 2

The negative consequences of the Agricultural Treadmill

- It is not consumers but input suppliers, food industries, and supermarkets who capture the added value from greater efficiency. Large corporations are well on their way to obliterate competition in agriculture. Only farmers are squeezed.
- The advantages of the treadmill diminish rapidly as the number of farmers decreases and the homogeneity of the survivors increases. The treadmill has a limited life cycle as a policy instrument.
- Eventually, the treadmill is unable to provide farmers with a parity income. That becomes clear from the subsidies we must give our farmers. We want to reorient that flow of subsidies, but do not as yet have a good alternative. At the time of writing, the European Commissioner for Agriculture was working on it. In the meantime, recent research shows that 40% of farm incomes in the Netherlands are already based on activities other than primary production (Oostindie et al, 2002).
- The competition among farmers promotes non-sustainable forms of agriculture (use of pesticides and hormones, loss of bio-diversity, unsafe foods, etc.). The treadmill is contradictory to nature conservation, drinking water provision, landscape conservation, and other ecological services.
- The treadmill leads to loss of local knowledge and cultural diversity.
- A global treadmill unfairly confronts farmers with each other who are in very different stages of technological development, and have very different access to resources. Although the costs of labour in the North are many times those in the South, labour productivity in agriculture in the North is still so much greater that small farmers in developing countries do not stand a chance (Bairoch, 1997). The global treadmill prevents them from developing their agriculture and denies them purchasing power at the same time. This effect is only acerbated by export subsidies paid to farmers in the North to overproduce.
- The Treadmill leads to short-term adaptations that can be dangerous for long-term global food security. I think for example of the possible and much disputed disappearance of arable farming from the Netherlands. In the US, one now speaks of the 'Blank Hypothesis'; agriculture in the US will disappear by 2030 because food can be produced more cheaply elsewhere (Blank, 1998). The new American subsidies might prevent this for a while. But it does become evident that the treadmill does not support the contribution to global food security of the most productive agricultural areas in the world. There are those who say that organic agriculture cannot feed the world. I think it is more appropriate to say that one cannot feed the world as long as the treadmill is in operation.

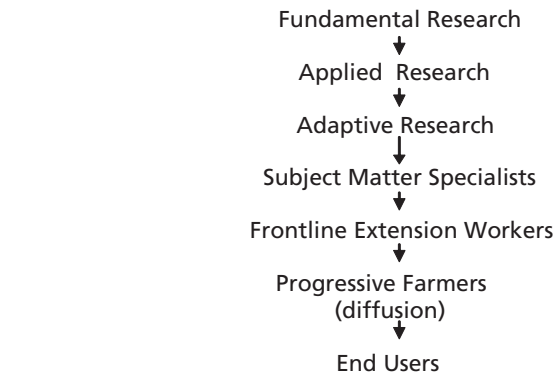
I conclude that within the self-imposed boundaries of treadmill thinking there is no way to solve some of the more important challenges that now confront us, especially in countries and situations where conditions are different from those in the Midwestern States of the USA in the forties. But the same goes in my own country. To continue with treadmill policies, as the farmers want us to do, means further reducing the fraction of our incomes that goes to primary production at ever-greater externalised costs. The treadmill does not fit our age. We have to re-invent agricultural economics and the major pressure is for us to get off the treadmill and to imbed land use in other social and economic mechanisms.

1.3. Transfer of Technology

The third narrative is the transfer of technology. Science is the growth point of human civilisation. It develops the technologies that help us escape from what the Bible calls the 'vale of tears'. Science ensures progress. Extension *delivers* these ideas to *users*. Science is good, but stupid people do not always appreciate it. If farmers do not adopt the scientists' ideas, chances are that they are backward and don't know what is good for them. Or the culprit might also be extension. After all, many extension workers have been badly trained. A third possible reason can be a 'fatal gap' in the linear flow from science to farmers, for example because subject matter specialists are missing (McDermott, 1987).

Transfer of Technology assumes a one-way and uninterrupted flow of technologies from fundamental scientists, to ultimate users via various intermediaries and delivery mechanisms (Figure 3). It therefore is also called the linear model is (Kline and Rosenberg, 1986; Chambers and Jiggins, 1987).

FIGURE 3
Transfer of Technology (also called 'The Linear Model')[3]



This is the typical thinking behind technology transfer. It is an important ideology

By way of example, we present the difference between two situations: (1) the transfer of knowledge, and (2) the co-creation of knowledge. In the first situation, an expert, such as an agricultural extension agent or a medical specialist, seeks acceptance of, or compliance with, his way of looking at the world or of solving a problem. In the second situation, a group of stakeholders with different and often complementary experiences or knowledges agree on ways forward to improve their shared problem (Table 3).

The column 'Co-creation of Knowledge' shows that totally different and equally credible narratives do exist to the more familiar 'Transfer of Technology'. However, it is my feeling that especially in public agencies for agricultural research, extension and policy-making, and also in many agricultural universities, the three dominant narratives described in this chapter inform decision making about agricultural development.

To my mind, any discussion about development communication must start with reflection on the three narratives. It is my conviction that they reflect certain historical

[3] Confusion exists in our field in the use of TOT. In some publications, such as those by Robert Chambers, it refers to Transfer of Technology. In publications that have an IMP background, TOT refers to Training of Trainers, a key ingredient in the quality of Farmer Field Schools (FFS).

conditions and a phase of agricultural development that is not necessarily ubiquitous or very relevant from a development communication perspective. In the next section I provide an example of a different context.

FIGURE 4

Comparing Transfer of Technology and Co-creation of Knowledge on a few key aspects

Key Factor	Transfer of Knowledge	Co-creation of knowledge
Nature of problem	Lack of productivity or efficiency	Lack of concerted action
Key actors involved	Expert and target audience	Interdependent stakeholders in a contested resource or shared problem
Desirable practices	Target audience uses improved component technologies	Stakeholders agree on concerted action (e.g., integrated catchment management)
Desirable learning	Target audience adopts technologies developed by expert. In best situation: diffusion of innovations among members of target audience. Learning of expert is not relevant in this situation	Through interaction, stakeholders learn from and about each other. They try out ways forward in joint experimental action that allows discovery learning. They become able to reflect on their situation and empowered to deal with it
Facilitation	Expert demonstrates, persuades, explains, promotes	Trained facilitator brings together stakeholders so as to allow interaction. He/she creates spaces for learning and interaction (platforms). He/she manages the process, not the content.

2. EXPLORING THE CONTEXT FOR AGRICULTURAL INNOVATION IN WEST AFRICA[4]

However poor and miserable some West African farmers might be, all have *veto power* when it comes to accepting the results of agricultural research: there is no way that one can force autonomous farmers to adopt technologies. It proves very hard to get this veto power on the retinas of some agricultural researchers and administrators as an inescapable framework condition for effective research.

A typical example is an important and highly regarded international agricultural research agency in West Africa. Its concern is with soil fertility management. After excellent research, it had come to the conclusion that improving soil fertility in West Africa is a question of soil organic matter first and nutrients second. This research showed that planting, and ploughing under, the luxurious growth of the velvet bean (*Mucuna spec*.) is the most efficient way to increase soil organic matter. When this thinking was made public, it predictably drew some criticism. After all, Mucuna has been tried time and again. Invariably farmers complain that one cannot eat the beans, that it is hard and painful to incorporate the vegetative matter into the soil, that the bean occupies the land for two seasons during which food production is impossible, etc. Nowhere in West Africa has Mucuna been taken up as a green manure. Undaunted, the representative of the agency proclaimed that this was not his but the farmers' problem and that if they wanted to escape from the vicious circle of land degradation and poverty they should plant Mucuna. As a scientist he knew what worked, acceptability by farmers was not his problem. This approach is a typical example of linear thinking. The scientist is right and his lack of impact is the farmers' problem.

But the lack of impact of agricultural research in West Africa cannot be blamed on lack of innovativeness on the part of the farmers. West African farmers can be considered among the most innovative in the world. Their indigenous systems represent sustainable, resilient and intelligent forms of agriculture that have supported

[4] Based on a section of Röling et al, in press.

expanding communities over the centuries. They took up maize, Phaseolus beans, cassava, tomatoes and many other current staple crops that originate from Latin America in fairly recent historical times. West African farmers have coped with the rapid population increase during the last twenty years and have adapted their farming systems to deal with new problems such as declining soil fertility, declining rainfall and weed emergence. Gold Coast tribesmen of old have made cocoa Ghana's major export crop without any government assistance, a development that only came to a halt when excessive taxation virtually killed the goose that laid the golden eggs.

Our favourite example of West African farmer innovativeness is the development, by farmers on the Adja Plateau in Benin, of a new farming system based on an oil palm fallow that deals with extremely high population pressure on the land, 'comatose' soils, and the weed *Imperata cylindrica,* and that is profitable to boot, through the production of *Sodabi*, an alcoholic drink distilled from the palm wine that is harvested when the palm fallow is cut down (Brouwers, 1993).

Enough said. Small-scale farmers in West Africa are amazingly innovative. Perhaps village levelling mechanisms and fear of jealousy-inspired black magic lead to some reluctance of farmers to stick their head above the parapet, but on the whole, one cannot blame stagnant agricultural productivity in West Africa on the traditionalism or conservatism of farmers. Hounkonnou (2001), who for 12 years has surveyed the West African development scene has come to the conclusion that the only thing that 'works' in rural West Africa is 'rural dynamics', the continuous innovative struggle of rural people to improve their lives

The question then is: why has it not been possible for agricultural research to link into this rich lode of innovativeness? We believe it is too easy here to place the all the blame on the disciplinary myopia of some researchers and the linear transfer of technology paradigms that international and national science & technology institutions have been following. However serious an impediment this is. After all, for years now West Africa has been the scene of sensitive efforts of various actors to use participatory approaches (e.g., Defoer, 2002; Van Paassen, 2004). Below we explore three factors: (1) farmers' lack of countervailing power, (2) the lack of markets and service delivery institutions at the middle level, and (3) the systematic creaming off of the wealth generated by West African agriculture by pre- and post-independence governments[5].

2.1. Farmers' lack of countervailing power

Without going into too much detail, most observers would agree that the demise of colonialism has left West African countries with a vacuum in terms of checks and balances so that corruption, political adventurism, and exploitation of the powerless could have free play. Part of this picture is the total absence of countervailing power of organised farmers. Farmers have no control over commodity prices, input selling companies, government produce buying schemes and marketing boards, policies to import cheap foodstuffs that undercut local farmers and so forth. If one compares this situation with industrial countries, the sharp contrast stands out.

In most industrial countries, farmers have power that is disproportionate to their numbers, but reflects the fact that they collectively own most of the land of the country. They are extremely well organised, and their representatives can be found in the capillaries of the political system. In fact, in many industrial countries farmers are so powerful that they are able to override concerns for health (e.g., food safety), environmental pollution and toxification, nature protection, sound water management,

[5] De Janvry and Dethier (1985) list the following factors: (1) farmers have no political clout; (2) taxing the beneficiaries of research; (2) lack of co-ordination between technological and economic policies; and (4) little ex-ante analysis and participatory research.

tourism, animal welfare, and even prudent economic practice. Farmers in industrial countries have a well-organised institutional influence on decisions about agricultural research and extension, and they are embedded in networks of service delivery organisations, many of which they own themselves through their own co-operatives.

Based on the experience in industrial countries, one could say that the fastest way to develop West African agriculture is not to strengthen what in Francophone countries are called '*les organismes d' intervention*', but farmers' countervailing power *vis-à-vis* those '*organismes*' (Röling and Jiggins, 1998).

Until quite recently, there was little chance that such advice would be heeded in West African countries. Colonial governments had no interest in farmers' countervailing power. Heaven forbid! They were good at creating the incentive structures required for small-scale farmers to produce the raw products required by their industries. Hut taxes put the pressure on the need to generate cash. And the 'cash crops' such as cotton, cocoa, etc., were the only ones that could generate cash. Carefully designed 'supervised credit' systems that integrated credit delivery, produce buying, input delivery, and farmer payment (after deducting credit repayment and interest) allowed the effective mobilisation of the energy of millions of small farmers across West Africa. The SODECOTON is a good example.

Post-independence Governments had every reason to maintain this mechanism. For this to succeed, farmers needed to remain unorganised, ignorant of the scandalous percentages that governments were creaming off commodity export prices, and powerless to defend themselves against official corruption. Now the situation is changing. Commodity prices have nose-dived. Low prices have made farmers neglect their plantations and crops so that productivity has remained very low, starving governments of revenue. What is more, industrial agricultures, benefiting from years of investment in research and productivity enhancement, are now able to import food grains into West African countries at prices that are a disincentive for West African farmers to produce for the market (Bairoch, 1997). For Kenya in East Africa, it is said, for example, that maize can now be imported into the country at prices that are lower than the cost price of the most efficient local farmers, including large white farmers. Obviously, there is little reason for KARI, the Kenyan Agricultural Research Institute, to invest in maize research in this situation (pers. comm. Dr Cyrus Ndiritu, former KARI Director, July 2003). In West Africa, examples abound of donor schemes, such as Sassakawa 2000, that successfully create the conditions for small farmers to produce 7 tons of maize per hectare, only to find that farmers do not adopt the required practices because they cannot sell the surplus. Perhaps the opportunity for a Green Revolution in West Africa has passed forever.

Whatever be the case, present West African Governments are waking up to the need to provide farmers with a better deal. A good example is the new price policy for cocoa in Ghana. But effective farmer countervailing power over the decisions that affect their lives is still a long way off.

2.2. Failing marketing chains and service institutions

If there is one thing that strikes those who have been acquainted with rural development in West Africa over the years, it is the lagging development of the institutions at the middle level, such as transparent marketing institutions, dependable veterinary health services, affordable credit provision, competitive input delivery mechanisms, accessible extension services, produce transport, etc. The only dependable institution in the West African rural scene seems to be the market trader with her sense for business and trade. Recently imposed structural adjustment policies have largely destroyed whatever public service delivery mechanisms were available. From an economic point of view, this was perhaps the right thing to do; given the low productivity in monetary terms of West African agriculture, investment in service delivery simply does not pay. But the

fact remains that the absence of a network of service institutions in which agriculture is embedded severely constrains agricultural development. Time and again, pilot projects are mounted that artificially create the conditions for a rapid productivity growth. Then, when it comes to scaling up their indeed impressive effects from the pilot level and to replicate the project on a larger scale through existing institutions, the effects collapse. The existing institutions are simply incapable of creating the conditions in which small-scale West African farmers can apply their innovativeness to the benefit of the public cause. As it is, in the absence of a decent monetary income, they focus on subsistence production and are 'organic by default'. Inputs are too expensive to apply, and producing a surplus is irrational. Small wonder, that those who measure agricultural development against the growth of productivity per hectare, are not impressed by West Africa's innovative performance (Chema, et al, 2003). They see only stagnation in what is, in fact, a highly dynamic, innovative and adaptive performance, given very adverse and rapidly changing circumstances.

In all, one can conclude that it has not been possible, to date, to set in motion in most of West Africa the agricultural treadmill by which innovation is propelled by the market and technological advance exerts downward pressure on prices, to the benefit of consumers, and the competitive position of the country's agriculture in the world market. Meanwhile, WTO has incorporated West African agricultures into a global treadmill in which they do not stand a chance. West African agriculture, if it remains unprotected, runs the risk of remaining a source of subsistence until farmers can escape into off-farm jobs.

The situation described has important implications for agricultural research. It is irrelevant to assume goals for technology development, such as productivity increase. It is equally irrelevant to implicitly assume that conditions can be created that will allow large-scale adoption of a technology, if those conditions are not available at present. Further, it is irrelevant to develop technologies that can only be adopted as long as special conditions can be created through small-scale projects.

2.3. Creaming off farmers' wealth

Industrial countries cream off farmers' wealth and exploit their energy through the treadmill mechanism described above. As we have seen, food becomes increasingly cheaper as farmers continue to compete with each other by trying to be ahead of the pack. Farmers' countervailing power does not work in the case of the treadmill mechanism. The influential farmers in the agricultural organisations are the ones that grab the windfall profits; hence they benefit from the treadmill. In no European country have farmers ever protested against the fact that the treadmill annually leads to a 2 – 3 % decrease in the numbers of farmers. The influential farmers buy the land of the dropouts and benefit again.

In West Africa, creaming-off agriculture has taken another route. Since the vast majority of the population was engaged in agriculture at the time of Independence and since the only wealth generated at the time was the revenue from export crops, the new governments had little option but to exploit the wealth generated by agriculture. We have described the consequences in terms of run-down of export industries, low yields per hectare food production, and, according to some, constant mining of the nutrient reserves of West African soils without replenishment (Stoorvogel and Smaling et al, 1990).

At present, things have begun to improve. Urban development creates markets for food commodities that cannot be imported cheaply, such as cassava and various vegetables. The fact that farmers increasingly have alternative sources of income (e.g., through urban wage employment, emigration, etc.) means that they no longer have

to accept any monetary income they can make from export crops. Governments are forced to offer farmers better deals. In other words, new opportunities seem to be emerging, but these are by no means automatic or obvious.

Our (superficial) survey of the West African context shows that it is very different from the one in which the three interlocking dominant narratives emerged. But in a situation where farmers do not have clout, it is all too easy for people, explicitly including Africans educated in the 'Western tradition', to, often implicitly, make decisions that are based on an industrial country context. The most glaring example of this is the tacit assumption that agricultural research serves productivity increase in terms of tonnes per ha. One scheme after another tries to achieve this. The predictable result is overproduction, a rapid fall in prices, yet another wrong prediction of the internal rate of return of a project, and disillusioned farmers. There must be another way. That is the challenge for development communicators.

3. DEVELOPMENT COMMUNICATION IN AGRICULTURAL RESEARCH, EXTENSION AND EDUCATION?

I would not have come down so hard on the three narratives, if it had not been for my long experience in various forums, which has taught me how much money and effort is wasted as a result of informing decisions about objectives, strategies and investment on the basis of these three narratives. What is worse, these three narratives form a screen that filters out new ideas, and make it impossible to invest in local experimentation that might lead to new ideas. With such strong narratives, it even becomes impossible to imagine that an alternative is possible.

It is time for me to become constructive. Where do we go from here? Let me begin by saying that as a social scientist, I am much better at explaining what has happened than at designing a bright new future. For example, Pontius et al (2002) who document the great achievement of the Farmer Field School Movement that emerged from FAO's IMP Programme in rice in Asia acknowledge me as someone 'who helped us to understand what we are doing and why we should continue doing it'. Meanwhile it is they themselves who as dedicated, inspired and highly motivated practitioners, in close collaboration with farmers, Master Farmer Trainers and others, over ten years slowly evolved Farmer Field Schools and Community IPM as practical alternatives to the three dominant narratives. I am very honoured to have been asked to address you as a social scientist. But I am not a designer of recipes for the future. Transfer of Technology does not apply also in my case. What I can do is to suggest some principles.

3.1. Farmers have veto power, better listen to them!

According to Sir Albert Howard (1943: 221), that great pioneer of organic agriculture who designed large-scale agricultural production systems that did not depend on chemical fertilisers, 'the approach to the problems of farming must be made from the field, not from the laboratory. The discovery of things that matter is three-quarters of the battle. In this the observant farmer or labourer, who have spent their lives in close contact with Nature, can be of the greatest help to the investigator'.

As I said, farmers have veto power when it comes to participating in induced innovation. There is no way one can force them to innovate. Therefore, one must listen to them, take them seriously, and involve them in one's work. There seems no other way. It seems to me that development communicators in research, extension and education, especially if they subscribe to the Millennium Goals, must ensure that farmers are given a voice in the development process. An example of a pioneer who developed such an approach is given below.

Tekelenburg (2002) worked for eight years in Cochabamba, Bolivia, in a development project that sought to regenerate ancient degraded mountain lands in the High Andes using Cactus Pear for human, cattle and cochineal feed and for re-vegetating the

barren slopes. Out of this experience, Tekelenburg drew conclusions for the types of 'agricultural research' that were required for a development project that is effective in reaching the rural poor. He suggests the following fundamental questions that must *all* be answered to achieve 'development' outcomes.

1. *What are the useful a-biotic and biotic relationships that can be construed*? For such questions, Tekelenburg had to go right back to fundamental research, for example, for understanding the life cycle of a new pest.
2. *What can technically make a difference*? A great deal of applied experimentation and conventional agricultural research, grounded in international scientific work, had to be carried out for this purpose. What pheromones can be used to attract the males into traps? What natural enemies can be used to control it? The general question is: what are the best available technical means for given (i.e. assumed) human problems? Most agricultural research falls into this category.
3. *What can work in the context*? Answering this question requires an analysis of the context in which small farmers live. This is usually achieved by paying attention to the agro-ecological zone. But equally important is the analysis of the market, input provision, transport availability, risks of theft, etc. As we have seen, it is no use to carry out research on maize productivity in Kenya if you can import it 20% cheaper than it can be produced with the best local technology;
4. *What can work in the farming system*? Here farmers' labour availability, gender differences, knowledge, access to land and other resources, market opportunities, etc., determine the range of appropriate options that fit the local system. At this point, one has to leave a disciplinarian or sectoral perspective altogether and focus on how the outcomes of the research fit into the local system. Will it work within that system? It is the fundamental question of the Farming Systems approach.
5. *What will be acceptable*? What systems do farmers want and need, given their explicit enthusiasms, alternatives, cultural inclinations, experience, livelihood strategies and superior insight into local conditions and constraints? To answer this question, and avoid invoking farmers' veto power, one has to leave behind any pretence that the scientist can determine what is best. The question cannot be answered without engaging farmers as co-researchers and without empowering them to have clout over the research process.
6. *How can the outcomes be scaled up*? Most research projects can be considered expensive, small-scale, pilot efforts that only become socially effective if the experiments are replicated at a societal scale, for example in factories or in markets. In this respect, the work of Latour (1999) on Ferdinand Jolliot, the husband of Marie Curie, who worked to ensure that atomic energy became part of France's policy repertoire, is a classic study of scaling up. Scaling up is not only a question of doing more of the same, i.e., through the diffusion of a given technology among farmers, but especially a question of institutional change in marketing chains, consumption patterns, education, government budgets, etc.

It is important to realise that *all* these questions need to be answered. It is also important to realise that these questions cannot be answered in the sequence in which they are listed above. In fact, one usually runs into these questions time-and-again, as the project progresses, and fundamental research questions might well be the outcome of a project rather than its beginning.

I believe that especially the questions 4 through 6 require attention from development communication. The challenge is to create social spaces for learning (Jiggins and Röling, 2003) in which farmers can be listened to and influence the answers to these questions. I feel that considerable international investment in experimentation with creating such spaces is required.

3.2. Farmers have no negotiating power; better find ways of giving it to them!

One of the principles of IPM is that 'the farmer is an expert'. This principle is increasingly recognised all over the world. One recent example from my own country is the recognition by official Water Management Boards that farmers have considerable local hydrological knowledge that the Boards can use to their benefit. Farmers may be experts, but they lack a collective voice, at least not in many developing countries. This lack of influence of farmers is beginning to be a handicap. In the early days of the Green Revolution, farmers were more or less considered as the lowest rank in the hierarchy. Scientists and administrators determined what needed to happen and farmers were told what to do. In many countries, if farmers did not like the new 'high yield variety' and continued to plant their old varieties, the authorities would not hesitate to call in the army or police to destroy the old crop. Prices were set at the national level, uniform technical packages of varieties, fertilisers and pesticides were recommended across huge domains assumed to be homogeneous. It worked for a while. Now that second generation problems are beginning to be felt (such as pest resistance and emergence), and now that the next advance must come from capturing diversity, a powerless peasantry is no longer the right partner for agricultural development. Farmers must have voice, they must be given full opportunity to help make development work.

The same can be said for the highly diverse, risk prone, rain fed areas where the Green Revolution has not worked. It has proved virtually impossible to 'develop' these areas without involving farmers in inventing the solutions. For scaling up the usually small-scale pilots it is necessary that farmers develop political clout.

Most of us who have seen IPM Farmer Field Schools in action have been impressed especially by the extent to which the process of discovery learning during the Farmer Field School has given farmers a new sense of self-confidence and pride. They have learned to engage in systematic experimentation. They have learned to conduct meetings and draw their own conclusions from observation. They have become empowered. In Indonesia, the IPM Farmer Field Schools eventually led to a Farmer Organisation that can act as a credible partner in policy making. Of course, people who think in terms of the three dominant narratives are unlikely to look at IPM Farmer Field School benefits from this perspective.

It is remarkable that the experience in the industrial world has gone unheeded in this respect. There is not an industrial country where farmers do not have power usually far in excess of their numbers. Such farmer power has been a crucial ingredient in the success of these countries to develop efficient agricultures. Developing the political clout of farmers seems the shortest route to development. To my mind, *that* should be a primary objective of development communication, not the use of ICT, wide screens and megaphones to better zap preconceived messages to farmers.

3.3. Innovation is not the end-of pipe result of a linear process but the emergent property of interaction among multiple stakeholders in an AKIS

I have started off by defining our area of discourse in terms of AKIS, a network of actors in a theatre of innovation. These actors potentially can make complementary contributions towards innovation. The network is based on shared perceptions with respect to the issues at stake. Working in a network mode on a basis of egalitarian interaction is not immediately acceptable in most public agricultural domains where hierarchy, protocol and protection of turf are dominating values. Yet I believe there is much scope for working in an interactive mode, as long as farmers are fully involved as partners. As I said above, an AKIS should not be seen as an organogram, with the Minister on top and a multitude of arrows linking bureaucratic units. An AKIS is a voluntary coalition of interest, made up of people who have come to form a theatre of innovation because they have confidence that a useful play can be enacted in that

theatre. An AKIS is a more or less temporary configuration of actors and institutions considered relevant for bringing improvement to a situation. One can even think of it as a task force or a project team. Sometimes improvement might come from new technologies developed in answer to the questions posed by Tekelenburg above. But in many situations, the priority problems will be institutional, organisational, or political. They will have to do with the creation the framework conditions for agriculture to become more productive, more sustainable and more socially just. It is crucially important to consider such types of change as innovations. Enhancing and facilitating AKIS in this sense is a tremendous challenge for development communication.

One project in my experience that has developed an intelligent and inspiring approach to introducing the kind of changes we are talking about is the Proyecto Nuevo Paradigma (De Souza Silva et al, 2000). It works with a very small staff, located in Costa Rica. The staff acts to inspire, mobilise, train, support and facilitate a network of country teams, each recruited from enthusiasts assigned by their respective Ministries of Agriculture to participate in the project. Each country team experiments in its own country with one or two new approaches. These are discussed and analysed during workshops in which all country teams come together. The country teams are each financed by their home governments, only the project team and its facilitation work are paid by a donor. It is a highly successful and inspiring effort supported by a progressive donor who can tolerate an open-ended outcome.

It is an example of an AKIS of second order. It is an AKIS for generating effective AKIS, a network for networking. I believe that a key to finding alternatives to the deadly mantra of the three narratives that emanates from the cutting edge scientists, the market fundamentalists, and the top managers, is experimentation. Or better still, such an AKIS for generating effective AKIS could support joint experiments that are already under way, where creative people a getting excited because something new is being achieved. I believe a great number of very important lessons are being learned every day in most countries in experiments with different approaches. We just do not take the time to examine them and learn from them because the three narratives have taught us everything we need to know. It is time to shake off our complacency and dare to accept that we have not done very well in terms of development and therefore than we need to accept that the only thing we know is that we don't know. We need to make a greater effort to learn together around concrete field experiments that pioneer new approaches.

In a recent water conservation project in the Netherlands (www.waterconservation.nl), we have learned that it is very effective to bring together concerned stakeholders at the field but also at the agency and provincial policy levels around a concrete problem and to learn together how to deal with it.

3.4. One must involve those who have the power to determine the framework for the agriculture and rural development sector

Alas, it is an all too common experience to see good initiatives thwarted by those who see the world as a set of variables to be manipulated (after Fresco, 1986), i.e., the people who set the conditions in which you must work. It is impossible to achieve goals without involving these 'higher' levels. I believe that development communicators in research, extension and education have an important task in bringing about transformational learning at these higher levels.

4. CONCLUSION

In the agricultural sector, the actors who set the scene tend to be of three kinds, in my experience. First and most ubiquitous are the agronomists, soil scientists, animal scientists, engineers and others who have a natural science background. They tend to think in terms of causes, not human reasons. In second place, I would mention

agricultural economists who do think in terms of human reasons, except that they assume that humans make rational choices on the basis of cost benefit calculations. Thirdly, there are the lawyers who think in terms of systems of norms and design unambiguous regulatory frameworks.

The scientist, the economist and the lawyer each have a necessary contribution to make to development. But in a world in which people's livelihoods are increasingly determined by other people, and where achieving one's goals becomes increasingly determined by the actions of others, the three perspectives leave out a crucial ingredient: *concerted action*. Concerted action is the key ingredient in integrated water catchment management. It is the crucial ingredient in systems innovation with respect to creating realistic opportunities for the poor. It is the crucial ingredient in developing more effective marketing chains. Concerted action increasingly is, to my opinion, the crucial dimension of innovation.

When it comes to concerted action, thinking in causes, in terms of rational choice, or in terms of rules is not of prime importance. Concerted action emerges from interaction. It is based on negotiation, on awareness of interdependence, on reciprocity, and sometimes on solidarity. Concerted action results from learning about and from each other, from slow convergence with respect to goals, ideas, ways of assessing outcomes, and so on.

In my humble opinion, development communicators have a vital contribution to make by elevating concerted action and co-creation of knowledge through interactive learning to the status of a governance mechanism at par with technology, hierarchy and market.

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ANNEX: PROPOSITIONS FOR DISCUSSION

1. Food and fibre are only two of many ecological services on which humans depend. Other ecological services include drinking water, bio-diversity, climatic stability, control of pests and diseases, health, stable hydrological systems, fuel, building material, pollination and so forth. Both in the South and the North, promoting food and fibre production with total disregard for other ecological services is rapidly becoming irresponsible. Both rich and poor suffer economically, socially and psychologically from ill health (e.g., obesity), degradation, desiccation, pollution, toxification and other negative impacts from agriculture. It is time to look at agriculture in a wider (systems) perspective. Such a wider perspective has far–reaching implications for **Development Communication**. The focus shifts from technology push to the facilitation of co-creation of knowledge in complex and contested resource dilemmas in which multiple stakeholders exert competing claims on limited resources.
2. Innovative performance emerges from interaction among complementary actors in theatres of innovation. The theatres of innovation, complementary actors and their interaction all require active fomentation so as to ensure that they gel into effective knowledge and innovation systems (AKIS). Such process management is a key task for **Development Communication**. Only in few instances can this task effectively be limited to the promotion of component technologies.
3. We as **Development Communicators** must change our narratives from an outdated focus on diffusion, technology transfer and the treadmill, to the new and exciting stories that are emerging everywhere. We must learn to tap into the experiments and learning that are going on at the local level in most developing and industrialised countries. Examples are Community IPM, Landcare, Social Learning, Common Property Resource Management, Participatory Learning and Action, etc.
4. Part of the outdated focus is to regard researchers as knowledge and technology *creators*, extension staff and educators as *delivery mechanisms* of knowledge, information and technology, and farmers as ultimate *receivers and users*. In this scenario, only extension officers and educators are communicators. Modern views of innovation support a totally different view in which the functions of creation, exchange and use are supported by different actors and institutions, including research, extension and education, but also including commercial enterprise, farm women, NGO workers, community leaders, etc., depending on the situation. All these actors are actively involved in shared networks, interactions, learning processes, etc. In other words, they are all active communicators, and to the extent they are not, innovative performance will suffer. **Development Communication** has a 'meta' role to play in helping these actors become better 'interactors'.
5. **Development Communication** runs the risk of being captured by the fast professionals who have learned to regard communication as a tool for promoting commercial interests. Poverty alleviation is a product. Hence the same communication rules apply as in selling toothpaste or condoms. The focus is on clever media use, imaginative market research, etc. While accepting the value of some of these practices, we observe that their focus on *intervention* means they neglect *interaction*. Communication becomes only persuasion, instead of also listening, exchanging ideas, building concerted action and negotiating agreement.
6. An analysis of the context for agricultural development in many developing countries suggests that it is not so much the enhanced power of the '*mechanismes d'intervention*', such as public extension services or research institutions that is required, as the enhanced power of small farmers to countervail those '*mechanismes*'. The history of agricultural development in industrial countries

suggests that such countervailing power is an essential ingredient in effective utilisation of public and private funds. Building such countervailing power is a key task for **Development Communication**.

7. An analysis of the context for agricultural development in many developing countries shows that it not so much technologies that are the factor in the minimum, but institutional frameworks within which technological innovation can make an effective contribution. If they were given concrete marketing and input purchasing opportunities, for example, small African farmers could greatly enhance the productivity of their resources with *existing* technology. It is the task of **Development Communicators** to develop effective strategies to create synergistic networks of commercial input providers, public service agencies, banks, and marketing agents. Hence the old and automatic focus on research, extension and education sets everybody on the wrong foot to begin with.