

ERA ARD

The Agricultural Research for Development (ARD)
Dimension of the European Research Area (ERA)

Promote
collaboration in
European ARD
to strengthen
Agricultural
Research for
the world's poor



Working document

Final Summary Report

ERA-ARD and the Millennium Development Goals (MDGs)

-  1. The extent to which European ARD focuses on poverty reduction and the MDGs
2. Strategies for improved relevance of

Presented by Natural Resources Institute (UK) with support from
Wageningen International (NL)
JUNE 2007







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The views expressed are not necessarily those of DFID





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Abbreviations

ARD	Agricultural Research for Development
CGIAR	Consultative group on International Agricultural Research
DG RTD Commission)	Directorate General Research Technology and Development (of the European
ECART	European Consortium on Agricultural Research for the Tropics
EFARD	European Forum on Agricultural Research for Development
EIARD	European Initiative for Agricultural Research for development
ERA-ARD	European Research Area – Agricultural Research for Development
ERA-NET	European Research Area - Network
EU	European Union
FARA	Forum for Agricultural Research in Africa
FAO	Food and Agriculture Organisation (of the United Nations)
FP 7	Framework Programme 7 (of the European Commission)
GCDT	Global Crop Diversity Trust
GFAR	Global Forum on Agricultural Research
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
IAASTD	International Assessment of Agricultural Science and technology for Development
IARCs	International Agricultural Research Centres
ICT	Information and Communication Technologies
IFAD	International Fund for Agricultural Development
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MS	Members State (of the European Union)
PAEPARD	Platform for African– European Partnership on Agricultural Research for Development
PRSPs	Poverty Reduction Strategy Papers
SRG	Southern Reference Group (of ERA-ARD)
SSA CP	Sub-Sahara Africa Challenge Programme
UK-CDS	UK Collaborative on Development Science



Executive Summary

The countries of the European Union (EU) have committed themselves to fighting poverty and hunger and to accelerate sustainable development in the world's poorest countries and thereby contribute to achieving the Millennium Development Goals (MDGs). At least for the short-term, there is now widespread consensus that the welfare of poor household in many parts of the world can be improved through agriculture and a key component in meeting the MDGs is a more productive and profitable agricultural sector.

The relationship of agricultural development (and specifically, agricultural research) and impact on the MDGs is a complex one. In the context of establishing the relationship between European agricultural research for development (ARD) and the MDGs, this report summarizes two studies; 1) on the extent to which the current ARD of EU member states (MSs) is designed to contribute to the realization of the MDGs, and 2) on how this contribution could be improved for the future.

The MDGs are a significant influence on most policy formulation by ministries or government agencies that have responsibility for international development and setting the ARD agenda. Thirty four ARD programmes were assessed and of these, 88% contribute primarily to MDG 1 (income poverty and hunger); to a secondary extent 44% contribute to MDG 7 (environmental sustainability); 28% to MDG 8 (develop a global partnership for development); 12% to MDG 3 (gender equality and empowerment of women) and 12% to MDGs 4, 5 and 6 (reduce child mortality, improve maternal health and combat HIV/AIDS, malaria and other diseases). MDG2 (universal primary education) was not reported. To varying degrees EU MSs are adapting their ARD policies to take MDGs into account, although at the level of ARD programme implementation the relationship to MDGs could be made more explicit.

The efforts of most EU countries in ARD concentrate on the 'Least Income' and 'Low Income' countries, but there would appear to be a case for re-visiting the current priorities and putting further emphasis on addressing priority target groups/areas. This must consider the wider context of target countries and the extent to which ARD is currently able to be effective, e.g. in fragile states.

The funding mechanisms in most MSs provide for the whole 'knowledge chain' from strategic research to applied and action research and from institutional to individual capacity building. The reviewed programmes were clustered in 3 classes of funding stream, 1) support to international agricultural research centres (IARCs), particularly the CGIAR, 2) support to national institutes and 3) programme calls. Most countries have ARD funding that supports both the CGIAR and other international institutions. Funding of donors' own national ARD organisations is not only used in the donor countries, but also supports the participation of developing country partners in joint projects. France, in particular, supports its own national ARD institutes in this way. UK and France use programme calls accessible by both ERA-ARD national and developing country organisations where topics are either proposed by the applicant or clearly specified by the donor.

Consultations suggest that evaluations and impact assessments, where they have taken place, have tended to be at the individual project level rather than the programme level. An important shift in thinking (and to varying degrees practice) in monitoring and evaluation (M&E) of agricultural research is increased emphasis on learning for organizational and institutional change in order to improve efficiency and performance with respect to given goals such as pro-poor innovation. This is clearly linked to the importance of capacity strengthening as a component of EU ARD. At least some donors are putting greater emphasis on M&E for both accountability and lesson learning.

There are a range of factors and interests driving ARD programmes of EU MSs which, although not necessarily reflected in policy statements, can have important implications for how ARD programmes are designed and implemented. Understanding these drivers requires a more extended and inclusive process than has been possible to date. To achieve a European ARD with greater relevance to MDGs, there should be more emphasis on the following factors –

Capacity strengthening of individuals, organizations and systems for ARD. ARD policy should increase the emphasis on capacity strengthening for putting research into use.



Integrated approach to increasing productivity. Effective ARD must continue to emphasize an integrated, cross-sectoral, trans-disciplinary, systems-based approach to increasing productivity, taking into account economic, social and environmental criteria and impacts.

Livelihoods analysis as a tool to inform policy development and monitoring and evaluating the subsequent impact of policy on different dimensions of livelihoods.

Giving voice to poor and vulnerable in ARD policy development, implementation and evaluation, driven by southern nationally-based ARD strategies linked to Poverty Reduction Strategy Papers (PRSPs).

More equitable access to local, national, regional and global markets. This requires an understanding of the whole value chain and in turn would inform a fairer trading environment at all levels.

Climate change adaptation. Poorer people and poor countries are most vulnerable to climate change and more resources need to be invested in building capacity for adapting to climate change.

Public funding with complementary private funding. The public sector must take the lead in ARD addressing the MDGs since the market will not allocate sufficient private sector resources. The public sector should use this money to leverage and enable effective private sector funding.

Evidence based policy. Effective M&E and learning systems need to be in place to inform effective and efficient policy design and implementation and assessment of outcomes and impacts.

Information technology and institutional change. In order to bring knowledge into use, access to information has to improve. Greater and more creative use of ICTs can address this. In addition to hardware, investment in developing a supportive institutional environment and systems to facilitate access to ICTs are essential.



1. Introduction

1.1. Background

Agricultural Research for Development (ARD)¹ is research which addresses the agricultural challenges and issues faced by developing countries, emerging countries and countries in transition. The European Research Area Network (ERA-NET) ARD project² fulfils an urgent need to better understand how ARD programmes are identified, selected, designed, funded and managed at the national level as well as to improve synergies between national programmes and strengthen Europe's contribution to and, impact on, regional and global ARD systems.

About 70 % of people living on less than \$US1 a day (the MDGs' target group) live in rural areas, particularly in Asia and Africa. There is now widespread consensus that in the short term, the welfare of poor households in many parts of the world can be improved through agriculture and that a key component in meeting the **Millennium Development Goals (MDGs)** is a more productive and profitable agricultural sector. The relationship between agriculture and the MDGs varies with each goal; it may be direct or indirect, one-way or two-way and in each case there are complementary requirements that determine actual outcomes.

The countries of the European Union (EU) have committed themselves to fighting poverty and hunger and to accelerating sustainable development in the world's poorest countries and thereby contribute to achieving the MDGs. This report to ERA-ARD partners summarizes the outputs of two study areas concerned with improving the focus of European ARD on poverty reduction and MDGs. These study areas were

Study area 1 - The extent to which European ARD focuses on poverty reduction and the MDGs – in particular the extent to which the ARD currently commissioned by the EU MSs (i.e. the strategies and programmes mapped in the framework of ERA-ARD) is designed to contribute to the realization of the MDGs.

Study area 2. Strategies for improved relevance of European ARD Programmes with respect to the MDGs – in particular, how the contribution of the EU MSs to achieving the MDGs may be improved. This has been done with the aim of raising awareness and stimulating action from ERA-ARD participants. An outline is given of what needs to change in European strategies in terms of goals, objectives, content, process, technology, M&E, funding and governance and suggestions offered of how these changes may be brought about.

¹ ARD is research which addresses the agricultural challenges and issues faced by developing countries, emerging countries and countries in transition. Agriculture is used in its broad sense and includes crops, livestock, forestry, fisheries, environment and natural resources management. ARD includes capacity-building and research into agricultural production, productivity, storage, processing and marketing; dissemination, up-scaling, uptake and distribution of the research products; as well as policy, institutional and societal issues.

² ERA-ARD is a project within the frame of the ERA-NET Programme of the European Commission



1.2. Agriculture and the Millennium Development Goals

The issue of the relationship of agricultural development (and specifically, agricultural research) and impact on the MDGs is a complex one. The member states of the United Nations adopted the Millennium Declaration in 2000 as a renewed commitment to human development. The Declaration established eight Millennium Development Goals (MDGs) to be achieved mainly by 2015 (see Annex 1).

The MDGs are as follows:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria, and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development.

Although agriculture is not mentioned in the MDGs, there is now widespread consensus that agricultural growth is key for poverty reduction both in an absolute as well as a relative sense in comparison to other sectors (see annex 2). This is largely because poverty has a very significant rural dimension. In the shorter term, poor households' welfare in many parts of the world can be improved through agriculture and a key component in meeting the MDGs, is a more productive and profitable agricultural sector.

1.3. Methodology

A significant challenge to the study team has been the inconsistency and diversity of interpretation of ARD and the fact that the information submitted by project partners and placed on the Infosys+ database is incomplete in many cases. In view of these data constraints and the limited time and resources available, a twin track approach was adopted whereby the database was interrogated whilst at the same time, person-to-person contact was made with key individuals in the EU MSs to complete a questionnaire based on relevant themes/questions on Infosys+. This was supplemented with further questions, particularly relevant to ARD and the MDGs. Documents showing policy objectives of ARD programmes were collected where possible. Thirty four programmes (out of 84) were identified as being "ARD specific" by national coordinators³, the remainder included both ARD and other areas. The 34 programmes were therefore selected for review with regard to their contribution to the MDGs. They are coordinated by 9 different countries (meaning that 5 European ERA-ARD countries, namely Spain, Poland, Hungary, Lithuania and Slovenia were not included in this survey).

Cross country analyses were undertaken based on individual country reports and provide a snap shot in time of their ARD in relation to the MDGs.

A second area of study to identify strategies for improving relevance of ERA ARD to the MDGs, comprised the development of an analytical framework, review of relevant literature on current thinking and a workshop presentation to ERA ARD partners giving an opportunity to provide feedback on the ideas and proposals generated.

³ ERA-ARD Survey Report – Scope and governance of funding mechanisms for agricultural research for development in Europe, ZADI/ISICAD 2006



Two specific questions were posed -

How can drivers that determine the nature of current European ARD be influenced in order to re-orient European ARD towards greater relevance to the MDGs?, and

How might the orientation of European ARD change to contribute more to poverty elimination in general and the MDGs in particular?



2.The Extent to which European ARD Focuses on Poverty Reduction and the MDGs

2.1. Which MDGs are targeted at a policy level?

MDGs are a significant influence for most policy formulation for ministries or government agencies with direct responsibility for international development and for setting the ARD agenda at this level. Most national policies for international cooperation and development and the policies for ARD are based on MDG 1 and to a lesser extent MDG 7 followed by MDG 8.

Prior to the formulation of the MDGs, reducing poverty and hunger were the main objectives of international development cooperation and ARD in a number of EU MSs. These MSs (e.g. UK, Netherlands, Switzerland, France, Denmark and Germany) did not face major difficulties in addressing the MDGs and their targets in their ARD policy. Adopting the MDGs has resulted in partial changes to ARD policies, e.g. for Switzerland, ARD policy and agenda became more socially-oriented after the adoption of the MDGs. Other countries are in the process of adapting their policies (e.g. Belgium and Austria) to take the MDGs into account. No immediate policy shifts were evident in the case of Italy.

To assess whether the policy focus on MDG 1 actually leads to donors selecting beneficiary countries that would be legitimate MDG targets, the countries that have been beneficiaries of ARD programmes were identified. Most ARD efforts of the various donors in our sample concentrate on the "Least Income" and "Low Income" countries. This is consistent with the fact that MDG 1 was mentioned most often as an important driver for the ARD policy formulation. However, a relatively high proportion of support to countries with low-middle and upper-middle economies was evident.

2.2 Translating policies into ARD funding programmes – the angle of approach

In most of the MSs evaluated, a variety of public bodies are responsible for translating the policies for development cooperation into funding mechanisms for ARD and in all MSs a number of ARD funding programmes have been developed. The funding mechanisms in most MSs provide for the whole knowledge chain from strategic research to applied and action research and from institutional to individual capacity building.

Many of the ARD funding programmes evaluated support strategic research. Results of projects executed will yield knowledge and technologies that can contribute to the alleviation of poverty and hunger. The final effect on the MDG targets of these ARD results depends on many factors. The same can be stated for the policy-oriented research programmes. The results of these ARD programmes are expected to contribute to better policy making for sustainable economic development but it is not clear whether they will contribute directly to the MDGs.

Capacity building is key to agricultural development and many countries have special ARD funding mechanism for individual and/or institutional capacity building. The outputs of such ARD funding mechanisms will be less directly linked to MDG targets, but could contribute to them indirectly.



In summary, MDGs have clear influence at the level of ministerial policy, which are subsequently translated in ARD-specific goals, objectives and actions at programme level.

2.3 Funding streams

The reviewed programmes were clustered in 3 classes of funding stream, 1) support to international agricultural research centres (IARCs), particularly the CGIAR, 2) support to national institutes and 3) programme calls. Each was sub-divided into core and targeted (restricted) funding but as programme expenditure is only partially reported in the database the results can only be used to indicate trends.

Most countries have ARD funding that supports both the CGIAR and other international institutions. Substantial support to the CGIAR is given by Switzerland, Germany, UK and the Netherlands and this was reported to be due to the CGIAR's significant ability to contribute both to ARD and the MDGs, especially in those developing countries with a weak ARD institutional setting. The Italian contribution is also high due to large contributions to other international institutions (FAO and IFAD).

Funding of donors' own national ARD organisations is not only used in the donor countries but also supports the participation of developing country partners in joint projects. France, in particular, supports its own national ARD institutes in this way. It should be noted that the data set on this is incomplete.

Programme calls are launched by the ministries to finance proposals accessible by both ERA-ARD national and developing country organisations. Two cases are distinguished; the first is an open call where applicants can propose their own topics; the second is where topics are clearly specified by the donor. In the sample analysed, it appears that only two countries provide this kind of funding mechanism, UK and France, but again the database is incomplete concerning this funding mechanism. Bilateral programmes could also include significant ARD support of this kind but bilateral programmes are not included on the database.



2.4 Implementation, monitoring and evaluation, and impact assessment

At the implementation level, for strategic and policy research, the MDGs are translated into proxies such as improved production systems, new crop varieties, IPM approaches, value chain management, etc. that will finally contribute to the MDGs. For capacity building projects, targets are set on the types of people trained (MSc and PhD, mid career training) or institutions strengthened to provide the training capacity needed to solve the problems facing many developing countries.

Monitoring and evaluation (M&E) addresses the goals set by projects and/or their activities and outputs. The intensity of M&E is related to the kind of funding provided and for core contributions such as those provided to the CGIAR, M&E is mostly executed at a distance. Projects executed with special project funding are more closely monitored and evaluated, sometimes by representatives of the funding agency in the steering committee of the project. Some projects are visited annually by representatives of funding agencies to monitor and evaluate their progress.

Impact assessment is directed to the activities and expected outputs of particular projects. For example, if a project focuses on the development of a new crop production technology then impact is measured by quantifying the number of farmers who have adopted this new technology. How this technology will contribute to poverty alleviation is another issue.

M&E and impact assessment are executed largely at the project level and this makes it difficult to evaluate the impact of EU ARD on MDGs at the programme level. Reviewing the M&E and impact assessment at programme level and how it links to the project level would help to enable future evaluations of the relationship between EU ARD and the MDGs.

2.5 What questions has the study answered?

The study has provided at least partial answers to the following questions.

To what extent does European ARD broadly focus on i) poverty elimination and ii) individual MDG targets (e.g. directly or indirectly, positively or negatively)?

Poverty elimination is stated policy for the EU MSs' ARD which is funded through ministries and departments responsible for international development cooperation. The exception to this is the few cases where the senior government agency funding an ARD programme is primarily focused on other sectors, e.g. education or national agriculture. Of the ARD programmes assessed 88% contribute primarily to MDG 1 (income poverty and hunger); to a secondary extent 44% contribute to MDG 7 (environmental sustainability), 28% to MDG 8 (develop a global partnership for development), 12% to MDG 3 (gender equality and empower women) and 12% to MDGs 4, 5 and 6 (reduce child mortality, improve maternal health and combating HIV/AIDS, malaria and other diseases). MDG2 (universal primary education) was not reported. To varying degrees EU MSs are adapting their ARD policies to take MDGs into account. However, at ARD programme implementation level although MDGs are, or may be, addressed to varying degrees, this relationship could be made more explicit.

To what extent can the ARD of EU MSs be shown to have had impact on i) poverty elimination and ii) individual MDG targets currently and in the recent past?

It was beyond the scope of this study to assess impact of the ARD of EU MSs on the "ground" with target groups. Consultations suggest that evaluations and impact assessments, where they have taken place, have tended to be at the individual project level rather than the programme level. An important shift in thinking (and to varying degrees practice) in M&E in agricultural research is increased emphasis on learning for organizational and institutional change in order to improve efficiency and performance with respect to given goals such as pro-poor innovation. This is clearly linked to the importance of capacity strengthening which is an important component of EU ARD. At



least some donors are putting greater emphasis on M&E for both accountability and lesson learning, e.g. the DFID Research into Use Programme has up to a third of its budget allocated for this purpose.

For each MDG as appropriate, to what extent does European ARD address the priority target groups/areas (e.g. meaningful, effective, not effective etc)?

The ARD of EU MSs puts emphasis on least income and low income countries, although it was not possible to assess in detail for each MDG. However, this indicative assessment of the geographical focus of the ARD programmes suggests there is a case for re-visiting the current priorities and putting further emphasis on addressing priority target groups/areas. This of course must consider the wider national context of target countries and the extent to which ARD is currently able to be effective, e.g. in fragile states.



3. Strategies for Improved Relevance of European ARD Programmes with Respect to the MDGs

3.1. Drivers of European ARD

There are a range of factors and interests driving ARD programmes of EU MSs which, although not necessarily reflected in policy statements, can have important implications for how ARD programmes are designed and implemented. The initial focus of European ARD was on increasing the productivity of major crops and livestock and broadening the range of institutional linkages. Later the focus grew to include the development of new approaches and methodologies (participatory research, systems thinking, gender analysis, and more recently livelihood analysis) and a concern with the longer-term issues of environmental sustainability and biodiversity. More recently issues connected with access to markets and global trade, energy use and climate change and migration have become important. The drivers here relate to European interests and consumers concerns (e.g. on food safety, carbon emissions, immigration) as well as to the objective of improving conditions in developing countries.

The diversity in background and drivers of European ARD has increased with the accession of new states. Current policies on ARD and the extent and modalities of funding to national research organisations vary across member states (MS). An important driver of ERA ARD is the market; global demand for research services and the supply driven interests of researchers. Some MS continue to have a strong pro poor focus in ARD while in others, researchers are increasingly driven by new opportunities for international research partnerships in cutting edge science, linking to the productivity and environmental sustainability agenda. European research institutions are responsive to market conditions – moving towards areas of research investment and scientifically rewarding partnerships and exploring the market opportunities to sell specialist knowledge to an emerging commercial agricultural sector. Opportunities for specifically poverty-oriented research are less common in the research 'market'.

Understanding these ARD drivers requires a more extended and inclusive process than has been possible to date. For the future, sharing this understanding is key in the development of the ERA-ARD partnership. How important are the different drivers in terms of achieving the goals of poverty reduction and individual MDGs? Who decides the priorities and how? Who implements and how? Who monitors and evaluates and how? How can the research market be influenced in order to enhance the contribution towards MDGs? These are important issues for ERA-ARD partners to consider in the context of addressing the MDGs specifically and future EU ARD more generally.



3.2. Issues and challenges

Governments need an explicit agricultural strategy linked closely to their poverty reduction strategies. A clear lesson is that these strategies must be country-owned and led and adaptable to changing local, national and international contexts. There is a need for governance and policy reforms, a healthy market/private sector and private-public partnerships, with the end objective of addressing the MDGs. It is important to strengthen capacity of individuals, organizations and systems at local level and at global level supported by global partnerships as called for in MDG 8, e.g. moving towards a more level playing field for agricultural trade and an increase in the volume of ODA spent on agriculture. The MDG targets and indicators provide a mechanism for not losing sight of the other MDGs such as gender equality and environmental sustainability.

A number of recent reports have identified key issues with respect to mobilizing R&D to meet the MDGs. The issues to varying degrees provide a useful guide for ERA ARD and include –

Enhancing capacity for knowledge-creation and use

Enhancing capacity of individuals, organizations and systems in the South in order to create and use knowledge relevant to the MDGs is key. Innovation systems thinking may provide new insights into where capacity building interventions would be most effective. Low salaries and poor working conditions, coupled with limited scope for professional advancement, have led to a “brain drain” as scientists seek better opportunities in developed countries. In order to encourage scientists to remain in their countries and to contribute more effectively to national and regional development, career opportunities must be improved and new incentives put in place.

Bridging the gap between knowledge creation and its use.

Weak linkages between producers and users of knowledge limit the application of knowledge in policy and practice. Critical issues include: how to enable the voice of the poor and local communities to be heard in setting the research agenda (European research agenda and national research agenda), and how to improve the learning process.

Coordination and focus of research for development in the EU

The diversity of development-related research in the EU MSs is a strength, but it also results in a lack of focus and of critical mass. This may be addressed by greater cooperation around key MDG-related research areas and the involvement of new partners as well as existing development-related research organizations. These new players may come from anywhere on the research and development spectrum. ERA-ARD could play the role of brokering the wider ‘European offer’ in this process.

Need for development based strategic research frameworks and incentives

The incentive system within the EU does little to encourage research approaches that are focused on critical development needs. Scientific performance is typically measured by the number of publications and citations. Scientific quality and relevance for development need to be assessed in a balanced way. The challenge is for the MDG-related knowledge agenda to be embraced by organisations beyond government development agencies and for national knowledge and innovation agenda to link to the international development agenda. In general, EU national governments’ development research is not guided by a broad strategic research framework. There is insufficient attention paid to the results, effectiveness and impact of their research policies. Although scientific quality is generally well monitored, the relationship with development is often not considered systematically. An example of a practical approach at project level is provided by the Generation Challenge Programme in which researchers are asked to explain how their proposed scientific outputs will link into innovation systems.

Emerging global ARD issues

There are a number of important trends which are influencing future directions of ARD.



Global trade – ARD is moving toward a whole value chain approach, with more attention given to improving post-harvest and processing technologies and to issues of quality, compliance with standards and marketing.

Diversification, migration and urbanisation – ARD should include assessments of economic changes at the farm and market level, as well as of shifts in agricultural policy, changes in demography and trends in development e.g. urbanisation and peri-urban agriculture.

Climate change – Climate change is an over-arching issue and if no action is taken, the overall costs and risks of climate change will be equivalent to losing at least 5% of global GDP each year. The most vulnerable -the poorest countries and populations- will suffer earliest and most. ARD must be part of a global response based on a shared understanding of long-term goals and agreement on frameworks for action.

Cross-sectoral approaches

There is a growing recognition that, in order to achieve the MDGs, issues must be tackled across a range of sectors e.g. health, environment and energy and should take into account the important linkages between them. However, funding for research tends to be organised along sectoral lines. Opportunities for cross sectoral research have been relatively limited. However, there is potential for ARD to deliver positive impacts on e.g. health by enhancing incomes, producing nutritious and affordable food; by developing labour-saving production technologies to mitigate the effects of HIV/AIDS in rural areas and by identifying the ecological determinants of major vector-borne diseases such as malaria. ARD can also contribute to improving the sustainability of natural resources management and it can help improve the resilience of vulnerable populations, in rural and urban areas, to natural disasters, notably through effective land management and land use. The use of bio-energy can create income opportunities for small-scale farmers and reduce adverse environmental impacts and dependency on fossil fuels, if managed appropriately.



3.3. What needs to change to make agriculture contribute more to the MDGs?

The linking of public-funded agricultural research with MDGs has increased the pressure on many national and international research organizations to enhance and demonstrate their contribution to poverty reduction, food security and environmental sustainability, for example the CGIAR now presents its research outcomes in terms of contributions to individual MDGs. The World Bank has stated that 'future investments in agricultural research require a more explicit linkage of the investment with poverty reduction strategies'.

Suggestions to achieve this include:

- Investments to improve the efficiency and effectiveness of national research systems in developing countries;
- Analysis of the nature and causes of poverty;
- Establishing a broad strategy for research investments based on poverty analyses;
- Setting specific priorities within the broad strategy for investments important to poorer people;
- Strengthening the institutional base for research (including private sector research where feasible, appropriate contractual and competitive funding mechanisms, financial sustainability, decentralization, building capacity of producer organizations);
- Promoting inclusive participation of the poor;
- Promoting uptake of research outputs by the poor; and,
- Implement monitoring and evaluation systems to measure impacts

3.4. Current European ARD Strategies for Change

Two of the main initiatives to address the strategic direction of European ARD are the European Initiative for Agricultural Research for Development (EIARD) and the European Forum on Agricultural Research for Development (EFARD). These bodies are well positioned to mainstream MDG relevance in ARD.

The European Initiative for Agricultural Research for Development's (EIARD) goal is to increase the impact of ARD on poverty reduction, food security and sustainable management of natural resources in developing countries. Its purpose is that coherent European policies on ARD are formulated, presented and implemented in a coordinated manner at the national, sub-regional, regional and global level.

EIARD activities and plans fall within three strategic areas of work.

Effective management and exchange of European ARD information in support of policy making and research partnerships/activities

This has included the facilitation of the establishment of EFARD and its constituent National Fora; funding an ARD information management system (EARD-InfoSys+) and promoting European research networks. Future activities to 2010 will include encouraging new MS to become active members of EIARD and facilitating the establishment of their National EIARD Networks; promoting sustainable funding for EARD-InfoSys+; encouraging effective coordination of a) National EIARD networks so that EIARD can act as a group more effectively and b) European national ARD programmes through the establishment of an ERA-ARD.



Formulation of European positions on ARD issues, policies and strategies

EIARD has been responsible for "A European Strategy for Agricultural Research for Development (1999)", to guide the ARD investments of EIARD members, and "CGIAR – Strategy Pointers (2000)" to guide the EC's financial support for the CGIAR. EIARD members have also contributed to the design of the International dimensions of the EC's Framework Programmes. Anticipated EIARD activities include the facilitation of EIARD Position Papers, in particular on Genetic Resources Issues, support for NARSSs, and capacity building. It will also promote a more explicit contribution for ARD in the FP7, with more resources allocated to ARD issues by DG RTD and other DGs;

Facilitation of the ARD-related decision making process by EIARD members, global, regional, sub-regional and national organisations

In this strategic area, EIARD has supported GFAR, and its Regional and Subregional ARD organisations and the Global Crop Diversity Trust (GCDDT). It has contributed to the reform of the CG system and promoted the concept, design and adoption of Challenge Programmes. Future activities will include facilitating the EARD-InfoSys+ to contribute to the successful establishment of a global ARD information system; ensuring EIARD continues to influence the reform of the CGIAR; promoting and supporting GFAR and regional and sub-regional organisations; contributing to the International Assessment of Agricultural Science and Technology for Development (IAASTD), providing evidence of the need for ARD. Lastly it will promote support for ARD by EIARD members and donors globally.

It is clear that EIARD holds a strategic position in key fora and coordination of European ARD and information exchange. Strategy area 2 is of particular importance in terms of influencing strategies and programmes towards MDG relevant content, while areas 1 and 3 are critical to providing the channels of influence.

EFARD and a new agenda for Europe's contribution to ARD

The European Forum for Agricultural Research for Development (EFARD) aims to provide a platform for strategic dialogue among European stakeholder groups in ARD in order to promote research partnerships between research communities in Europe and in developing countries.

Its primary objective is directly relevant to the achievement of the MDGs; "to strengthen the contribution of European ARD to addressing the global challenges of eradicating poverty and hunger, fostering food security and food safety, and promoting sustainable management of natural resources". EFARD contributes to GFAR's Global Plan of Action in partnership with the other Regional Fora. In particular, EFARD plays an important advocacy role in maintaining ARD as a top priority in political agendas at the European and international levels. EFARD conferences constitute the core element of EFARD activities. They aim at exchange of experiences and promoting strategic planning among the European research community and their partners in developing countries.

The EFARD 2005 Conference provided a platform for the diverse views of more than 300 conference participants from all stakeholder groups and all regions of the world. With its ten commitments, the 'Zurich Declaration' is the first step towards a common platform for EFARD's strategic development and its dialogue with partners within Europe and beyond. These covered new research priorities, capacity development and mechanisms for collaboration, including recognition of the variation in Southern countries capacities, strengthening the link between European AR and European ARD, recognising the role of new member states, the relationship between European ARD and CGIAR research, the relationship between EFARD, other regional fora and GFAR; EFARD's role and functioning vis a vis other European initiatives, particularly EIARD, the mandate, roles and responsibilities of national fora of EFARD's stakeholders.

The role of ARD in meeting the MDGs was one of the ten commitments. It highlights the direct contribution of agricultural research for development to some of the eight MDGs and indirectly to all, while identifying the constraints arising from inappropriate policies, low capacity, poor governance etc.

Where the actual emphasis lies in implementation of the above commitments, will be key in determining the outcome for MDGs. For example,

The proposed advocacy on the need for investment could usefully include greater awareness of the importance of targeting ARD for poverty impact and of the constraints which inhibit impact.



The new MSs perspective on ARD and the MDGs is bringing new dimensions to the discussion, including for some, the importance of their ARD for addressing MDG related problems in their own countries and regions.

With regard to ERA-ARD and the CGIAR, the delineation of comparative advantage is perhaps not quite as clear as set out in the declaration, raising the possibility of competition between ERA-ARD and the CGIAR. It is an open question as to whether such competition might be productive or have negative consequences with regard to ARD's contribution towards addressing the MDGs.

Further consideration could be given to the forms of governance which could enhance the effectiveness of EFARD in carrying out these roles.

3.5. Other initiatives linked to European ARD Strategies

There are a number of on-going initiatives to strengthen links between ERA-ARD and the south and/or put knowledge/ research into use. These initiatives may directly improve the relevance of ERA-ARD with respect to MDGs and indirectly influence policies to bring about wider impact.

ECART & FARA (European Consortium on Agricultural Research for the Tropics &- Forum for Agricultural Research in Africa) ECART & FARA are building a Platform for African-European Partnership on Agricultural Research for Development (PAEPARD) to enhance collaboration among European and African agricultural research stakeholders.

GFAR (Global Forum on Agricultural Research) GFAR is a stakeholder-led initiative that serves as a neutral forum for the discussion of strategic issues in agricultural research for development (ARD). It facilitates and promotes cost-effective partnerships and strategic alliances among ARD stakeholders in their efforts to alleviate poverty, increase food security and promote the sustainable use of natural resources.

Sub-Sahara Africa Challenge Programme (SSACP) The SSA CP aims to transform the way sectors and institutions at all levels approach agricultural research for development in order to increase its impact on improving rural livelihoods throughout SSA. The transformation entails a shift from narrowly focused sectoral concerns to a cooperative gender sensitive, integrated approach that addresses the full value chain from pre-production to consumption and thus includes public private sector linkages and improved markets and policies.

ERA-NET ARD Southern Reference Group The Southern Reference Group (SRG) is a key strategic entry point to foster greater involvement of southern ARD partners in ERA-ARD programmes.

3.6. What needs to change in European agricultural research for development?

The strategic areas requiring greater emphasis to enhance the impact of ERA ARD on the MDGs are set out in Table 1.

The goals of current ARD strategies are generally consistent with addressing the MDGs. However there are some areas where a change in emphasis could improve the relevance and contribution of ERA ARD towards achieving the MDGs.

Objectives: A greater emphasis on capacity strengthening would include giving adequate attention to incentives and motivation, building multi-stakeholder partnerships (public and private), relationships and trust; promoting innovations systems thinking.



Content: ARD needs to address key challenges. More equitable access to markets requires an understanding of the whole value chain and in turn would inform a fairer trading environment at all levels. Poorer people and countries are most vulnerable to climate change and more resources need to be invested in building capacity for adapting to climate change.

Process: The approaches of ARD stakeholders need to be validated through close engagement with national and local stakeholders in developing countries. Enabling innovation to take place within a framework of local and national conditions and norms will ensure that what is produced is relevant and appropriate. In order to influence European ARD strategies to improve relevance to the MDGs, the sustainable livelihoods approach and innovations systems thinking are together valuable for identifying appropriate entry points for capacity building. Complex problems such as capacity strengthening for adapting ARD to meet MDGs require innovative solutions. Finding such solutions requires diverse stakeholders to engage, learn together with the ultimate aim of developing the collective commitment and capacity to turn ideas and plans into action. This can be achieved through facilitating multi-stakeholder processes and social learning at local, intermediate and national levels. Creation of learning alliances will require considerable commitment and resources and the building of partnerships based on strong relationships and trust. This is essential to address the issue of scaling up.

4. Conclusions

This report has set out some of the issues regarding ERA-ARD and MDGs and how ERA-ARD's contribution to achieving the MDGs may be improved. This has been done with the aim of raising awareness and stimulating action from ERA-ARD participants. It has outlined what needs to change in European strategies in terms of goals, objectives, content, process, technology, M&E, funding and governance and suggested some options for how these changes may be brought about. These suggested changes would need to be validated through appropriate processes, including close engagement with southern and ERA ARD stakeholders. The challenge for ERA-ARD is to foster a strong spirit of ownership in taking this forward enthusiastically and creatively.

Annex 1 Areas requiring greater emphasis to enhance impact of ERA ARD on MDGs

	Greater emphasis on:
Goals	Greater contribution towards achieving specific MDGs (2015)
Objectives	More emphasis on capacity strengthening of individuals, organizations and systems for ARD in order to put knowledge into use address the needs of vulnerable groups
Content	An integrated approach to increasing productivity – economic, social and environmental Address the whole value chain Work towards a fairer global trading environment More equitable access to local, national and regional markets Climate change adaptation
Process	Giving voice to the poor and vulnerable in the context of national PRSPs Cross-sectoral / Trans-disciplinary/ Systems-based approaches Multi-stakeholder engagement – public and private sector participation Building partnerships, relationships and trust Sustainable livelihoods perspective Innovations systems thinking Learning platforms/learning alliances Incentives
Technology	Greater and more creative use of ICTs
M& E and impact assessment	From accountability, attribution and output orientation To: Learning, accountability, outcome and impact orientation Social and environmental as well as economic considerations
Funding	Public funding is key, with complementary private funding
Governance	Southern-led initiatives; ARD governance structures (membership, operation and objectives) to foster real engagement with southern organisations and processes.

Technology: In order to bring knowledge into use, access to information has to improve. Greater and more creative use of ICTs can address this. However, technology and institutions co-evolve; ICTs can potentially transform institutions, including ways of interacting, while institutions determine the appropriateness and effective use of technology. In addition, to hardware, investment in developing a supportive institutional environment and systems to facilitate access to ICTs is essential. Linkage of European ARD to other European initiatives on technology, particularly ICTs should be explored.

Monitoring and evaluation and impact assessment (M&E): Until recently, M&E systems for agricultural research have been driven by accountability, focused on quantitative impact assessment and offered little in terms of lesson learning. Appropriate M&E systems can make a major contribution towards organizational learning and improving performance for (pro-poor) agricultural innovation systems as well as allowing the assessment of outcomes and impacts to further inform ARD policy design and implementation. Progress has been made in identifying appropriate approaches by EIARD and others. Questions that arise are a) whether adequate resources are available; b) the commitment from key stakeholders is in place to carry this out effectively; c) whether there is sufficient representation from the south. Recent emphasis on encouraging joint European M&E may help to improve effectiveness and efficiency.

Funding: The public sector must take the lead in ARD addressing the MDGs since the market will not allocate sufficient private sector resources. The public sector should use this money to leverage and enable effective private sector funding. There is a need to coordinate public and private funding for ARD. The scope for cross-sectoral initiatives with public and private funding (such as the recent UK Collaborative on Development Sciences, UK-CDS) should be explored at European level.

Governance: European ARD needs to be driven through closer engagement with southern national stakeholders in the context of their PRSPs and rural development strategies.



Annex 2. Summary of links between the agriculture sector and the Millennium Development Goals, principally at household level

Goal	Direct	Indirect	Nature of Relationship	Complementary Requirements
1. Eradicate extreme poverty and hunger.	<ul style="list-style-type: none"> • Increased food production • increased food consumption for subsistence farming households. • More diverse food production • higher-quality diets. <p>For farming households:</p> <ul style="list-style-type: none"> • Increased production • increased income through markets • increased consumption and household assets. <p>For non-agricultural households:</p> <ul style="list-style-type: none"> • Increased production • reduced prices for agricultural products • increased consumption or reduction in share of income spent on food. 	<ul style="list-style-type: none"> • For both farming and non-farming households, increased income • increased capital investments in existing economic activities or diversification into other sectors • enhanced welfare and increasing household economic resiliency. 	<ul style="list-style-type: none"> • Two-way, quite strong, generally positive. • Less hunger • more productive workers in agriculture. • Less poverty • more investment in agriculture. 	<ul style="list-style-type: none"> • Suitable agricultural production technologies available. • Relatively equitable distribution of farmland across the population. • Efficient, widespread rural markets that are linked to regional and international trade circuits. • Knowledge on proper diet and nutritional care. Sanitation and health services available.
2. Achieve universal Primary education.	<ul style="list-style-type: none"> • Few. 	<ul style="list-style-type: none"> • More dynamic agricultural sector will change assessments of the economic returns to educating one's children compared to returns of keeping children out of school to work in household agricultural enterprises. 	<ul style="list-style-type: none"> • Two-way, principally indirect. • Possibly some negative ramifications if increased returns from agriculture can be achieved using child labour or higher skills are not required. 	<ul style="list-style-type: none"> • Increased returns to skilled labour in agriculture. • Primary schools with adequate quality of instruction are accessible.
3. Promote gender equality and empower women.	<ul style="list-style-type: none"> • Increasingly profitable agriculture • potential to economically empower women farmers. 	<ul style="list-style-type: none"> • Broader economic improvements through dynamic agriculture • increased public expenditures on water and sanitation, health, energy sectors • reduced time burden on women for domestic tasks. 	<ul style="list-style-type: none"> • Two-way. • Increased willingness of women to invest in agriculture • more dynamic agricultural sector. • Possibly negative ramifications if 	<ul style="list-style-type: none"> • Security of female access to agricultural resources. • Secure female control over own agricultural output.



			more dynamic agricultural sector • increased male domination of agricultural activities.	
4. Reduce child mortality.	• Few.	<ul style="list-style-type: none"> • More diverse food production • better nutrition • increased child survival. • More dynamic agricultural sector • increased income • more resources available to manage childhood illnesses. 	Principally one-way.	<ul style="list-style-type: none"> • Knowledge of proper diet and nutritional care. • Accessible and effective health services.
5. Improve maternal health.	<ul style="list-style-type: none"> • More diverse food production • higher-quality diets • improved health. 	<ul style="list-style-type: none"> • Primarily through same mechanisms as MDG 3 on empowerment of women. 	<ul style="list-style-type: none"> • Two-way, but not strong. • Improved maternal health will result in more productive agricultural labour, both from women and from their children. 	<ul style="list-style-type: none"> • Degree of control women have over resources to assure their own health. • Availability of nutrient-dense food crops.
6. Combat HIV/AIDS, malaria, and other diseases.	<ul style="list-style-type: none"> • Greater and more diverse food production • higher-quality diets • improved health. 	<ul style="list-style-type: none"> • More dynamic agricultural sector • increased income • more resources to devote to health services. 	<ul style="list-style-type: none"> • Two-way, principally indirect. • Reduced health burden enables more productive agriculture. • Possible negative ramifications if agricultural investments or labour migration patterns exacerbate or extend diseases. 	<ul style="list-style-type: none"> • Effective health system, both curative and public health services. • Effective interventions to limit HIV infection. • Particularly for HIV infection in subsistence farming households, availability of nutritious food crops that are not labour-intensive.
7. Ensure environmental sustainability.	<ul style="list-style-type: none"> • Agriculture practices can be both direct causes of and important immediate solutions to environmental degradation. 	<ul style="list-style-type: none"> • More productive agricultural technologies • Withdrawal of agriculture from marginal, sensitive environments. • More profitable agricultural sector • Reduced migration to urban slums. 	<ul style="list-style-type: none"> • Two-way. Both direct and indirect. • Agricultural sector is as likely to have negative ramifications on the environment as positive. Unprofitable agricultural systems tend to unsustainably mine environmental resources. • Declining environmental resource base is an erosion of the foundation for the agricultural economy. 	<ul style="list-style-type: none"> • To minimize negative environmental externalities of agricultural investments, participatory planning processes required. • Relatively equitable distribution of agricultural assets across the population. • Environmental costs of agricultural production incorporated into economic assessments of production systems.
8. Develop a global partnership	<ul style="list-style-type: none"> • Expanding global agriculture trade increases need for 	<ul style="list-style-type: none"> • More profitable agricultural sector • Expectation of better governance and 	<ul style="list-style-type: none"> • Two-way, but principally toward agriculture. Primarily direct. 	<ul style="list-style-type: none"> • Sufficient knowledge, capital, and



for development.	formal trading partnerships and rules. <ul style="list-style-type: none">• Capital requirements for comprehensive agricultural development• Significant increases in development assistance offered to the agriculture sector.	provision of public goods by governments to sustain the benefits from agriculture in the long term.	<ul style="list-style-type: none">• Globalization is as likely to have negative as positive ramifications on agricultural producers, particularly small-scale subsistence farmers, in the short term.	access to markets to enable agricultural producers to engage in regional and global trade.
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Source: World Bank/ IFPRI (undated) Agriculture and Achieving the Millennium Development Goals. Report No. 32729-GLB. Agriculture and Rural Development Department, World Bank, Washington DC



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