The Story of the GFAR Global Partnership Program on “DMC” (Direct-sowing, mulch-based conservation agriculture”)

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³ CIRAD, presently serving as Interim Facilitator of the DMC GPP.
Global Partnership Programs
Sometime during 1999, in an attempt to foster more coherent and inclusive agricultural research programs – while avoiding earlier patterns of “networks” tied exclusively to individual centers or institutions – GFAR chose to foster a new institutional innovation: “Global Partnership Programs” (GPPs). These GPPs aimed “to pull together and transform decentralized initiatives into global initiatives using a bottom-up approach”, guided by the principles of “subsidiarity” and “additionality”. A call was issued by GFAR for GPP proposals, with a submission deadline of February 15, 2000. Strict guidelines were provided on proposal content and format, and criteria for selection (Annex 1). Decisions on the selection of successful GPP proposals were set to be announced at the May 2000 GFAR/MTM meeting in Dresden – a very high profile event (Annex 2).

Origins of the DMC GPP
The notion of a Global Partnership Program on conservation agriculture first arose in late 1999, as a direct response to the GFAR request for proposals. The initial instigators of the DMC GPP were CIRAD staff members⁴ who perceived an opportunity to simultaneously pursue two institutional priorities: conservation agriculture, and GFAR itself. The acronym “DMC” (Direct-sowing, mulch-based conservation agriculture) was coined, with the conscious intention of bringing together as many as possible of the numerous competing interpretations of, and names for, conservation agriculture.

DMC was then, and continues to be, a theme of great interest to many entities and groups, among them: ACT (the African Conservation Tillage Association); the African Highlands Initiative; Australian ARIs; several CGIAR centers including ICARDA, ICRISAT and IRRI⁵; CIRAD (France); FAO; GTZ (Germany); farmer groups and research institutions (e.g., IAPAR) in Brazil and Argentina; IBSRAM; ISTRO; innumerable NGOs in Central America, Southeast Asia and other parts of the world; the NGO Committee of the CGIAR; North American ARIs; the Rice-Wheat Consortium for the Indo-Gangetic Plains; the Southern Africa Soil Fertility Network; etc.

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⁴ Among them Henri Rouillé d’Orfeuil, at that time Director of External Relations in CIRAD, and Pierre Luc Puglièse.
⁵ At the time, CIMMYT also was active in conservation agriculture but this has declined substantially.
It was felt that the development of a sound GPP proposal on the theme of DMC, one with a good chance of success, would require input from a number of conservation agriculture stakeholders. For this reason, CIRAD convened a two-day meeting in Paris in January 2000. This meeting involved more than 30 participants from NARS, international centers, ARIs, NGOs and donor and technical assistance agencies. One outcome of the meeting was a specific GPP proposal on the topic of DMC, for submission to GFAR. Another meeting outcome was the establishment of provisional institutional structures for GPP implementation. These included an Interim Executive Committee and an Open Action Group. The latter featured members representing the CGIAR system, NGOs, European ARIs, and NARS from the CWANA, Latin America, and sub-Saharan Africa regions.

The DMC proposal - goals, purpose, objectives and activities
The following information on the goal, purpose, objectives and activities of the DMC GPP was extracted from the proposal submitted to GFAR. The proposed GPP had a clear focus on information gathering, synthesis, sharing, and gap-filling – for the purpose of helping increase the effectiveness of DMC endeavors in the developing world.

“The goal of DMC is:
To help improve food security and alleviate poverty, while conserving natural resources and encouraging more durable forms of agriculture, by fostering broader use of sound agroecosystem management practices, especially those centered on direct sowing, mulch-based systems and conservation tillage.”

In order to achieve this goal, the Global Program on DMC has the following purpose:
To strengthen the capacity of key stakeholders to develop suitable DMC systems, and to accelerate their widespread adoption.

The proposed Global Program seeks to meet this purpose by achieving specific objectives:
- Provide a framework for analyzing and comparing stakeholder experiences with DMC systems.
- Synthesize and systematize lessons learned from decentralized initiatives.
- Identify gaps in what is known about developing and fostering the use of DMC systems, and encourage stakeholders to fill these gaps.
- Provide support and feedback to decentralized stakeholder initiatives.
- Foster the multiplication of successful experiences.

Global Program activities
The objectives of the proposed Global Program call for a global learning process. By analyzing and comparing experiences from decentralized initiatives, by synthesizing and systematizing lessons learned, and by identifying and filling gaps, stakeholders can be more effective. They can more swiftly develop suitable DMC systems, and more effectively encourage their widespread use. In doing so, they can draw on the keys to success, while avoiding known pitfalls.”
Approval [sic] of the DMC GPP proposal
During the course of the Dresden MTM/ GFAR meeting of May, 2000, the news emerged that all GPP proposals had been accepted – but that acceptance seemingly carried with it little of value. Despite the tightly structured approach, the strict proposal format, the detailed criteria for selection, and the highly visibility launch event – it appeared that successful GPPs were to receive little support from GFAR, other than a certain stamp of approval. Proponents of the DMC GPP were embarrassed to find that the strict and meticulous process imposed by GFAR for GPP proposal development and selection was not to be complemented by a similarly clear process for fostering or monitoring implementation.

Launching the Program
In the absence of other guidance, the provisional management structures established during the Paris meeting attempted to launch the DMC Program. As noted above, these structures included an Interim Executive Committee and an Open Action Group. The latter featured members representing the CGIAR system, NGOs, European ARIs, and NARS from the CWANA, Latin America, and sub-Saharan Africa regions. It was meant to be inclusive, not exclusive. The former included the following individuals: LW Harrington, interim Chair; Henri Rouillé d’Orfeuil (CIRAD), Jean Marc Von Der Weid (APTA, a Brazilian NGO); Francois Rasolo (Madagascar); and Mohammed Roozitalab (Iran).

Soon after the Dresden meeting, the Interim Executive Committee sent out information on the GPP to potential partners and stakeholders, including those that had participated in the Paris meeting. These communications described the DMC Program, invited participation, and requested financial and other kinds of support. Many congratulatory responses were received. Perhaps not surprisingly, however, few offers of collaboration or of financial support were forthcoming. A follow-up message was sent in November of 2000 (Annex 3). Further follow-up meetings to stimulate interest in the DMC GPP were held on various other occasions, e.g., ICW in Washington and the World Congress on Conservation Agriculture held in Madrid.

The Facilitators
It obvious from the beginning that a full-time DMC Facilitator would be necessary if the Program was to have any chance of success. Most activities of the DMC GPP called for the
examination of case studies, their synthesis, sharing of findings with the global stakeholder community, and the use of findings to foster more effective DMC programs around the world. Hiring a Facilitator, however, requires resources. Of all institutions expressing interest in DMC – even from those represented in the Interim Executive Committee or the Open Action Group – only one was willing to provide financial support for the Facilitation unit. This, of course, was CIRAD.

Facilitator terms of reference were developed and approved and a Facilitator – Fatima Ribeiro, a Brazilian researcher from IAPAR – was finally hired in early 2002. She served as DMC Facilitator until the end of 2003.

After her departure, Bernard Triomphe was asked by CIRAD to continue as Interim Facilitator. He took over this responsibility in early 2004. By this time, the other governance mechanisms of the DMC GPP had ceased to operate.

The initial case studies
Fatima Ribeiro’s first step was to once again communicate with potential stakeholders (Annex 4). Then she began the process of implementing case studies of DMC in action. The initial case studies focused on Bolivia, Tanzania and Ghana. Each one featured a different issue – fostering adoption of no-till by smallholders (Bolivia); the consequences of labor-saving DMC practices on women and other vulnerable groups (Tanzania); and the introduction of mechanization in areas where hand tool DMC practices had been adopted (Ghana). An early summary of these case studies was made available in 2003 (Annex 5).

Additional case studies
By late 2004 and early 2005, Bernard Triomphe had renewed the process of case study development, adding further case studies and beginning a synthesis of their outcomes. Criteria for case study selection were introduced, a conceptual and operational framework for case study implementation was defined, a workshop with case study team leaders was held (in early 2005, in Nairobi), some case study results were delivered, and initial efforts at synthesis were begun. These very substantial efforts are more fully recorded in a report submitted to GFAR in December, 2005 (Annex 6).
Case study synthesis – “Technical issues related to DMC development and implementation”
Here are some synthesis points summarized by Bernard Triomphe on technical issues related to DMC use by farmers. In this section, DMC is equated with “CA” (conservation agriculture). It would be worthwhile to continue with this synthesis work, bringing together more analysts and extracting more principles of DMC “best practice”.

- “Most farmers in most places are yet to apply “full” CA either because they are just starting on the CA pathway (relatively new efforts and projects), or because they are not likely to ever do it... IN both cases, there is a real need for developing & promoting more diverse CA systems, instead of simply spreading the theoretical gospel about CA in the form of a rigid blanket recommendation which does barely take into account local conditions and needs.

- Achieving soil cover either via CC [cover crops] or via crop residues represents a major technical & organizational challenge, except perhaps in more humid climates.

- Herbicides have a crucial role to play in initial phases of CA adoption. Without relying on them, weeding (and especially manual weeding) might become a nightmare for small holders with severe labor and time constraints. More efforts are needed to identify suitable cover crops & to achieve soil cover if herbicide dependency is deemed undesirable.

- Availability & access to CA equipment still represents a major hurdle / issue before large-scale adoption can take place.

- Replacing a food legume used traditionally in intercropping schemes (such as beans) by a cover crop might not necessarily be straightforward not wise for farmers whose primary objectives include achieving food security.”

Case study synthesis – “Process issues related to DMC development and implementation”
Here are some synthesis points summarized by Bernard Triomphe on process issues related to DMC research projects and information management. Once again, DMC is equated with “CA”. Once again, further synthesis activity is desirable.

- “Today, many projects and teams tend focus too heavily on field scale technical CA issues, and not enough on non-field, non technical, and non-exclusively CA ones : this bias prevents them from identifying and addressing some of the systemic aspects of CA development and introduction into existing farming systems.

- Beyond the technical issues, there is a real need for projects and institutions involved in CA work to develop and implement more participatory & flexible approaches, focusing on all relevant scales, and with farmers more clearly in the driver’s seat.

- The role of Indigenous knowledge and practices in CA work has frequently been overlooked by projects perhaps too keen on transferring external CA knowledge and technology packages as a way of duplicating success stories obtained in Southern Brazil.”
Most case studies demonstrate that reaching “success” with CA adoption will take quite some time (decades?). Hence one cannot avoid asking the question: is it actually worth the wait & efforts, compared to focusing on other technologies (e.g. agro-forestry) and options (e.g. agro-processing) for improving the livelihoods of small holders (notion of opportunity costs)?

Who are the target farmers of most CA projects? Is it the “average” farmer or only the “elite” farmers with whom agronomists love to interact so much that they somehow forget about the other types of farmers, less interested perhaps to a technology and innovation that is agronomically and environmentally correct but in most cases economically difficult to implement? Not to mention the special challenges faced by vulnerable households, such as those affected by HIV/AIDS and acute poverty.

**Valued added from the DMC GPP/ present and potential impact**

The question of value-added may be posed in two different ways. If the question is phrased as, “What has been the value-added of the work of the two DMC Facilitators?”, then a positive answer must be forthcoming. However, if the question is phrased as, “What has been the valued-added of the DMC GPP as such?”, then the answer is less clear.

The DMC GPP as such did not achieve the lofty goals that it set for itself. No “coherent and inclusive global agricultural research program” was established. And while “decentralized initiatives” were pulled together and a “bottom-up approach” was used, it would be hard to argue that this amounts to a “global initiative”. Perhaps the goal of a coherent global program was simply too ambitious.

Despite repeated efforts, generalized stakeholder participation in the GPP was not attained. And the DMC GPP suffered from several other flaws. Here are some of them:

- The apparent lack of commitment or even interest in the DMC GPP on the part of GFAR. Once the Dresden meeting was finished, the GPPs (and even GFAR itself) seem to have lost the central role once envisioned for them. This was demoralizing to those that had invested time and effort in the development of the DMC GPP.

- Lack of visibly successful DMC GPP activities to foster stakeholder interaction/ study tours/ synthesis activities across regions or networks. This is partly due to a lack of financial and human resources within the DMC Facilitation Unit.

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6 At this point, it should be noted that the opinions in this section are largely those of Harrington. Triomphe and Ribeiro have not yet had an opportunity to review them. Therefore, opinions in this section are especially subject to further development and change.
• Lack of operational funds from the beginning. CIRAD was the only institution willing to make even a modest financial commitment. Inadequate investment in mobilizing financial resources. But “it takes money to make money”.

• The centripetal forces that emerge when different institutions working on similar themes compete for visibility, attention and resources. It is likely that some of institutions or networks engaged in conservation agriculture viewed the DMC GPP as a competitor, not as a collaborative program that could add value to their own efforts.

• An inadequate governance structure. Communications among members of the Interim Executive Committee were not adequate, and membership was ad hoc, with poorly defined functions. Members served in their individual capacities and, at times, their home institutions were unwilling to allow them the time and resources to devote to DMC GPP activities.

The best examples of partnership within the GPP were those featured in the collaboration between DMC Facilitators and those institutions associated with particular case studies. The most important GPP products – the DMC case studies – can be wholly attributed to the hard work and painstaking efforts of the two Facilitators, and the case study partners. These products are of great value – and much remains to be done to extract even more value from them through additional case study interpretation and synthesis.

Principles for the revitalization of the DMC GPP

• Use a bottom up approach to networking.
• Provide concrete services to members.
• Formalize links with existing DMC networks and donors.
• Create operational links to regional ARD fora, e.g., AARINEA, APPARI, etc.
• Serve as an active bridge between World Congresses.
• Identify reliable and viable sources of funding.
• Be realistic in DMC planning.
• Review periodically progress against stated objectives.
• Gradually grow, building on previous success and on actual resources made available to the Program.

7 These principles are taken from a 1995 presentation by Bernard Triomphe.
Annex 1

CASE STUDIES OF SUCCESSFUL RESEARCH PARTNERSHIPS

A. Reminder of the Selection Criteria

It is probably worth reminding the proponents of the selection criteria which have been identified by the GFAR-2000 organizers to qualify a proposal as «successful research partnership »:

- Projects which have a global relevance.
- Projects recently completed or on-going projects with a sufficient number of years of existence to have produced significant results.
- Projects which have developed technologies which have significantly improved the well-being of the rural populations.
- Projects that were designed in such a way that they now allow assessing the impact of the technologies developed.
- Projects which have involved at least two different categories of stakeholders, one of them being a component of a developing-country NARS.
- Projects in which the end-users have played a key role either as partner in the research or in implementing the research results.
- Projects that successfully combine modern science and local wisdom.
B. Preparatory Work

For each case of successful research partnership to be presented at GFAR-2000, the proponent(s) should submit by **February 15, 2000** at the latest, to the NARS Secretariat a fully written document of a maximum of 6 pages along with the following format:

<table>
<thead>
<tr>
<th>A. SUMMARY (1 page)</th>
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<tbody>
<tr>
<td>1. Title:</td>
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<td>2. Duration:</td>
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<td>3. Objectives:</td>
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<td>4. Activities:</td>
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<tr>
<td>5. Area: GRM, NRM, Commodity Chain, Policy &amp; Institutions</td>
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<tr>
<th>B. STAKEHOLDERS (1/2 page)</th>
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<tbody>
<tr>
<td>1. Beneficiaries (in quantitative and qualitative terms)</td>
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<td>2. Research Partners</td>
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<td>3. Donors and budget (including the “in-kind” contribution of the participating organizations)</td>
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<tr>
<th>C. PROJECT RESULTS AND IMPACT (2 pages)</th>
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<tbody>
<tr>
<td>1. Main results (in terms of technological packages, and/or socio-economic and/or environmental improvements)</td>
</tr>
<tr>
<td>2. Dissemination of the results (different modes and how the results have reached the different beneficiaries)</td>
</tr>
<tr>
<td>3. Impact of the project (both in quantitative and qualitative terms)</td>
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<tr>
<th>D. PARTNERSHIP (2 pages)</th>
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<tbody>
<tr>
<td>1. Respective roles of the different stakeholders and coordination mechanisms for:</td>
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<tr>
<td>• project design</td>
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<td>• project implementation</td>
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<td>• project management</td>
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<td>• result dissemination</td>
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<tr>
<td>2. Added value of the partnership (in terms of research results, dissemination of results and impact)</td>
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<tr>
<th>E. CONCLUSION (1/2 page)</th>
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<tr>
<td>(Lessons learned; next steps foreseen; project sustainability; partnership continuation, etc…)</td>
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GFAR - 2000

May 21 - 23

Dresden, Germany

Strengthening Partnership in Agricultural Research
for Development in the Context of Globalization

DRAFT GFAR-2000 AGENDA

The GFAR-2000 Conference will take place in Dresden from Sunday, May 21 to Tuesday 23, 2000. Pre-GFAR-2000 meetings will take place on Saturday, May 20. A GFAR Steering Committee meeting will be held on Thursday, May 25 and a GFAR Support Group meeting on Friday, May 26, 2000. Attached are a draft agenda and an outline of the week’s activities.
Sunday 21 May 2000

08:00-09:00  Registration
09:00-10:30  Poster Exhibition and Opportunities for discussion

Opening session

Chair: Uschi Eid, BMZ Parliamentarian State Secretary, representing the Federal Minister for Economic Cooperation and Development, Germany

10:30-10:45  Welcome Address
* Raj. Paroda, GFAR Chairman

10:45-11:45  Introductory Remarks
* Jacques Eckebl, Sustainable Development, FAO
* Klemmens van de Sand, Assistant President, IFAD
* Ismaïl Serageldin, Vice-President, World Bank
* Uwe Werblow, Representative of the EU Commissioner for Development

11:45-12:00  Official Opening
* Uschi Eid, BMZ Parliamentarian State Secretary, representing the Federal Minister for Economic Cooperation and Development, Germany

12:00-13:30  Lunch Break

Session 1: A Global Shared Vision and a Global Strategic Agenda for international cooperation in Agricultural Research for Development
Chair: Jochen de Haas, Europe

A. Plenary Session

14:00-14:30  Main achievements and future challenges of GFAR
Speaker: Raj. Paroda, GFAR Chairman

14:30-15:00  Major trends and strategic issues for Agricultural Research for Development (ARD) in the early XXI Century
Speaker: Martin Piñeiro, Argentina

15:00-15:20  A Global Shared Vision (GSV) and a Global Strategic Agenda (GSA) for international cooperation in ARD: Introduction to the group discussions
Speaker: Fernando Chaparro, NARS Executive Secretary of GFAR
15:20-15:50  Coffee break

B. Group Discussions

15:50-18:15  Group discussions on trends and strategic issues for ARD and on the perspectives for the future of international cooperation in ARD

The participants are divided into groups of 12 to 15 persons. Each group shares the same list of questions articulated around the following topics: (i) current trends, issues and opportunities for ARD; (ii) type(s) of agriculture to be promoted; (iii) issues to be included in a global strategic agenda; (iv) guiding principles for new partnerships.

Each group nominates a rapporteur and all rapporteurs meet in the evening, with the GFAR management team, to prepare a synthesis report.

19:00-21:00  German Reception convened by the Federal Ministry of Economic Cooperation and Development at the Watzke Ballsaal.

21:00-22:30  Meeting of the “Synthesis Committee”

Monday 22 May 2000

Session 2: Promotion of innovative research partnerships

Chair: Jorge Kondo, FORAGRO

08:15-08:30  Report of the group discussions on trends and strategic issues for ARD and on the perspectives for the future of international cooperation in ARD.

A. Plenary Session: Introduction to Research Partnership in ARD

08:30-09:00  International Cooperation for the public good: agricultural research in the new century. Speaker: Ismaïl Serageldin, Chairman, CGIAR

09:00-09:15  A NARS Perspective on Research Partnerships: The EMBRAPA Experience. Speaker: Alberto Duque Portugal, President, EMBRAPA, Brazil

09:15-09:30  Public – Private Partnership: Building a Common Understanding. Speaker: Klaus Leisinger, Novartis Foundation
09:30-09:45 Research Partnerships in Knowledge Management for Local Innovations. Speaker: Ann Waters-Bayer, Forum Umwelt and Entwicklung, Germany

09:45-10:00 Proposed GFAR Strategy for research partnership
Speaker: Henri Rouillé d’Orfeuil, GFAR Vice-Chairman

10:00-10:30 Coffee Break

B. Sub-Plenary Sessions: Review of partnerships for the four GFAR priority themes

10:30-12:15 Four simultaneous sub-plenary sessions are organized as follows:
• an introduction on specific trends and prospects by a keynote speaker (15mn)
• a presentation of 4 or 5 successful case studies (8mn maximum for each)
• a review of the GFAR activities and proposals by a GFAR resource person (15mn)
• a general discussion (20-30mn)

Sub-Plenary 1: Genetic resources management & biotechnology
Chairperson: Marcio Miranda Santos, Brazil
Key speaker: Robert Herdt, Rockefeller Foundation
GFAR resource person (GRM): Ken Riley, GFAR Consultant, Canada
GFAR resource person (Biotechnology): Maria Zimmerman, FAO

Sub-Plenary 2: Natural resources & agro-ecology
Chairperson: Joseph Mukiibi, NARO, Uganda
Key speaker: Gill Shepherd, ODI, UK
GFAR resource person: Jean-Marc Von der Weid, Brazil

Sub-Plenary 3: International cooperation on commodity chains
Chairperson: Robert Friesen, President, Canadian Federation of Agriculture
Key speaker: Steve Sonka, USA
GFAR resource person: Emile Frison, IPGRI

Sub-Plenary 4: Policy management & institutional development
Chairperson: David King, IFAP
Key speaker: Per Pinstrup-Andersen, IFPRI
GFAR resource person: Reed Hertford, USA

12:15-13:30 Lunch break

C. Group Discussions: Formulation of innovative research partnerships

13:30-16:00 Participants to each of the four sub-plenary sessions are divided into two working groups to elaborate an implementation strategy for global partnership and to suggest concrete proposals for action, based on the portfolio of proposed innovative
partnerships. For each theme, the two working groups share the same basic documentation but focus their discussion on two complementary sub-themes.

**Theme 1**

**Group 1:** Genetic Resources Management  
Facilitator: Wanda Collins, CIP  
Rapporteur: Cary Fowler, Norway

**Group 2:** Biotechnology  
Facilitator: John Mugabe, AFCTS, Kenya  
Rapporteur: Peter Gregory, JSC Inc, USA

**Theme 2**

**Group 3:** Natural Resources Management & Agro-ecology  
Strategic Research Issues  
Facilitator: Ian Bevege, Australia  
Rapporteur: Jacky Ashby, CIAT

**Group 4:** Natural Resources Management & Agro-ecology:  
Managing Knowledge for Local Innovation  
Facilitator: William Dar, ICRISAT  
Rapporteur: Ann Waters-Bayer, Germany

**Theme 3**

**Group 5:** Under-utilized and Orphan commodities  
Facilitator: Cees Karssen, The Netherlands  
Rapporteur: Namzul Haq, International Center for Orphan Crops

**Group 6:** Global commodity chains  
Facilitator: Oumar Niangado, Mali  
Rapporteur: Harold Kauffman, USA

**Theme 4**

**Group 7:** Policy Environment for Agricultural and Rural Development  
Facilitator: Michel Petit, France  
Rapporteur: Francis Idachaba, ISNAR

**Group 8:** R &D Policies and Institutions for a Knowledge Agriculture  
Facilitator: Elizeo Ponce, The Philippines  
Rapporteur: Neville Clarke, USA

16:00-16:30 Coffee Break

**Session 3: The key role of Regional and Sub-Regional Cooperation in ARD**  
**Chair: Mustafa Yaghi, AARINENA**

A GFAR guiding principle is that: “The NARS of the developing countries along with their regional and subregional fora are the cornerstones of the global agricultural research system that GFAR aims to create.” This session reviews the ARD situation in the five regional fora and how they are articulated with the Global Forum.
16:30-16:50  Regionalization: A critical step towards Globalization  
Speaker: Dr. Christian Hoste, NARS Secretariat of GFAR

Reports by the Chairmen of the regions:

16:50-17:10  Asia Pacific: Ian Bevege, APAARI

17:10-17:30  West Asia and North Africa: Mohammad Roozitalab, AARINENA

17:30-17:50  Sub-Saharan Africa: Joseph Mukiibi, FARA

17:50-18:10  Latin America and the Caribbean: Jorge Kondo, FORAGRO

18:10-18:30  Central Asia and Caucasus: Azymkhan Satybaldin, CAC Forum

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**Tuesday 23 May 2000**

**Session 2 (cont’d): Promotion of innovative research partnerships**

*Chair: Joseph Mukiibi, FARA*

*Presentation of the conclusions of the working groups for the four GFAR priority themes*

08:30-08:45  Results of theme 1: Genetic Resources Management & Biotechnology

08:45-09:00  Results of theme 2: Natural Resources Management & Agro-ecology

09:00-09:15  Results of theme 3: International Cooperation on commodity chains

09:15-09:30  Results of theme 4: Policy Management & Institutional Development

09:30-10:00  General discussion and recommendations

10:00-10:30  Coffee Break
Session 4: Creating an Enabling Framework for a Global Knowledge System in ARD

Chair: Ronnie Coffmann, North America.

“Knowledge, and an equitable access to it, is essential to achieve food security and sustainable development” (statement made by the participants to the GFAR consultation on “Information Initiatives in Agricultural Research: Enhancing Global Cooperation”, Rome, March 1999)

10:30-10:50 The impact of the Information and Communications Technologies (ICT) revolution in ARD: opportunities and threats.
Speaker: Stephen Rudgard, FAO

10:50-11:05 The establishment of EGFAR, the Electronic Global Forum on Agricultural Research, as the communication platform of the GFAR stakeholders
Speaker: Alain Derevier, GFAR Executive Secretary

Speaker: Fernando Chaparro, NARS Executive Secretary of GFAR

11:25-12:00 General discussion

12:00-13:30 Lunch break

Session 5: GFAR Stakeholder Group Consultation

13:30-15:30 GFAR Stakeholder Group Consultation

The seven GFAR stakeholder constituencies elaborate a stakeholder position on the major outcomes of the conference and decide how they foresee their involvement in the follow-up activities.

15:30-16:00 Coffee Break

Session 6: Conclusions and Recommendations

Chair: Raj. Paroda, APAARI

16:00-17:00 Statements of the GFAR stakeholder groups
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>17:00-17:30</td>
<td>Presentation of the final versions of the GSV and of the Dresden Declaration that will form the basis for the GFAR Action Plan 2000-2003</td>
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<td>17:30-18:00</td>
<td>Final Address by the GFAR Facilitating Agencies: FAO, IFAD and World Bank.</td>
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<td>18:00-18:20</td>
<td>Closing address by:</td>
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<td></td>
<td>Joachim von Braun, on behalf of the German Scientific Community</td>
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<td>Jochen de Haas, BMZ, on behalf of the Host Country</td>
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<td>Raj. Paroda, GFAR Chairman</td>
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<td>19:00</td>
<td>GFAR Farewell Party at the Westin Bellevue Hotel.</td>
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<td>(programme to be communicated)</td>
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Annex 3

An Update on the Global Program for Direct-Sowing, Mulch-Based Systems and Conservation Tillage (GP-DMC)

The GP-DMC is being re-activated after a summer pause! This note is being sent to you because of your earlier expression of interest in collaborating with the Global Program. It contains two parts: A report on events in the GFAR meeting in Dresden held last May, and plans for activities in the near future.

Notes from the GP-DMC Meeting at GFAR, May 23, 2000, Dresden

Stakeholders interested in the proposed GFAR Global Program on Direct Sowing, Mulch-Based Systems and Conservation Tillage met during the GFAR meeting held in Dresden. The objective of the meeting was to brainstorm on next steps for implementing the GP-DMC global partnership, based on the concept note developed during the Paris stakeholder meeting. Five topics were discussed: the process for GFAR endorsement of the GP-DMC; selection of case studies or decentralized initiatives; the establishment of a Facilitation Unit; questions of governance; and specific next steps.

GFAR endorsement of the GP-DMC: Many proposals for global partnerships were tabled for consideration by GFAR, the GP-DMC being only one of them. During the Dresden meeting, these were discussed by working groups. Our Global Program was designed with an eye to GFAR principles for Global Programs: subsidiarity and additionality, open membership embracing all interested stakeholders, a bottom-up approach, and an objective of pulling together and transforming decentralized initiatives.

Selection of case studies of decentralized initiatives: The heart of GP-DMC resides in drawing lessons from decentralized initiatives (case studies), and using these lessons to foster greater success in the application of DMC principles and practices. Selection of suitable case studies is important. The open nature of GP-DMC was reiterated; GP-DMC members are voluntary and self-selected. Therefore, the case studies, at least initially, are those voluntarily designated by members. However, it is important that a suitable diversity of case studies be included (regions, practices, approaches, ecologies, soil types). At some point, it may be necessary to seek additional case studies.

The establishment of a Facilitation Unit: It was accepted that a Facilitation Unit is needed to carry the GP-DMC forward – for information exchange, the planning of study tours and workshops, the synthesis of lessons from case studies, etc. CIRAD will explore the possibility of providing resources for a temporary position for the staffing of this Facilitation Unit, to be located at Montpellier.
Questions of governance: It was agreed that the governance structure for GP-DMC should remain relatively simple. The current Interim Steering Committee was asked to continue on a temporary basis, with the addition of two new members. The revised Interim Steering Committee is as follows: Larry Harrington, (Chair); Henri Rouille-D’Orfeuille; Jean Marc Von Der Weid; Francois Rasolo; and Mohammed Roozitalab. This will be reviewed within the next year and regional contact points may be added.

An Open Action Group will be reactivated. At Dresden it was suggested that this Group be comprised of: CIMMYT (on behalf of the CGIAR system); ICARDA (on behalf of the CWANA region); CIRAD (on behalf of ARIs and Europe); ASPTA (on behalf of NGOs); Madagascar (on behalf of NARS and the regional groupings ASARECA and FARA); and Brazil (on behalf of Latin America). Other strategic stakeholders are sought.

Specific next steps: Some suggestions:
- Send this update note to those of you interested in GP-DMC.
- Work towards the establishment of the GP-DMC Facilitation Unit.
- Launch a process with members and stakeholders regarding what we wish to achieve in the process of synthesis, and how we might forward in conducting synthesis.
- Explore the application of Interdev (information management) and Prolinova (participatory research processes).
- Develop and post a distribution list of GP-DMC members.
- Develop and post a calendar of events (with web links) of likely interest to GP-DMC members, e.g., workshops, field tours, network meetings, etc.
- Develop a GP-DMC website, suitably linked to GFAR and other websites and content providers, for the more efficient sharing of information.
- Explore the possibility of visits/ study tours to Brazil and Vietnam and Pakistan.
- Identify sources of funding for the activities described above.

Many of the above steps will need to await the establishment of the Facilitation Unit. That is where many of our current efforts are focused.

Reactivation of GP-DMC during International Center’s Week
The Interim Steering Committee of the GP-DMC met in Washington during International Center’s Week to arrange for the reactivation of GP-DMC. We worked on finalizing the list of respondents interested in the GP-DMC, drafted this update note and developed a job description and draft terms of reference for a GP-DMC Facilitator. These will be circulated separately.

Over the next month or so, we aim to begin developing closer links to existing global and regional DMC networks, and to Interdev and Prolinova. In addition we will be requesting standardized information on existing DMC initiatives to begin the process of database development and information sharing. This standardized information will be used as input into case study selection. And we will begin the process of Facilitator recruitment and selection. You will hear more about this in the near future.
Finally, we intend to hold a workshop during the year 2001. Dates are not yet set, but the venue is likely to be CIMMYT headquarters near Mexico City. This workshop will feature a knowledge management framework and will aim to begin the process of reporting and synthesizing information from decentralized DMC initiatives, and to form communities of practice on specific themes. This will be one of several events leading up to a major international congress on DMC, tentatively scheduled to be held in conjunction with GFAR meetings in the year 2003.
Annex 4

The DMC Global Program – join us!

Dear colleague:

The DMC (Direct sowing, Mulch-based systems and Conservation agriculture) is an international initiative that aims to strengthen the capacity of key stakeholders to develop suitable DMC systems and to accelerate their wide adoption. The proposed program features a process of learning and synthesis. By analyzing and comparing experiences from decentralized initiatives, by synthesizing and systematizing lessons learned, and by identifying and filling gaps – not only on technologies, but also on processes – DMC practices can be harnessed by a wider range of stakeholders.

This initiative was formally launched in January 2000 by at a stakeholder meeting attended by representatives of National Agricultural Research Institutes, NGOs, International Agricultural Research Centers, regional networks and other institutions. This group agreed on the potential advantages of a global cooperation for fostering the worldwide adoption of DMC systems. At that time, a broader framework for the DMC initiative was forged. Unfortunately, delays in bringing on board a full-time facilitator set back somewhat the schedule for operationalizing the framework.

In early March, Ms. Fatima Ribeiro (a Brazilian researcher from IAPAR) started her activities as DMC facilitator, hosted by CIRAD. Her workplan was approved by the Interim Steering Committee in May 7, 2002. The first step is to make an inventory of development projects on DMC worldwide. The success of this initiative will depend on the engagement of stakeholders. As a resource person, we are sending this first communication to you, together with the following information:

1. A paper prepared by Dr. Larry Harrington, which describes in detail the purpose, objectives, and gives a background on the DMC initiative
2. The workplan of the facilitator for the next 15 months
3. A form to be filled in by stakeholders and sent to us. Please distribute this form to as many people as possible. Filling in this form makes you a member of the DMC Global Program.

If you have any question or suggestion, please send it to fatima@cirad.fr.

With my best regards,

Fatima Ribeiro
DMC Global Program Facilitator
Annex 5

DMC progress Report -- April 2003 --
Prepared by Fatima Ribeiro, DMC coordinator, April 10, 2003

Research and development programs to develop and promote DMC technologies exist in more than 40 countries, and some of these programs are several decades old. Yet despite all of the efforts that have been made to promote the technology, extensive adoption by small-scale farmers is still limited because of a large number of interacting technical, economic and institutional constraints can block the development and diffusion process. Improved understanding of the factors that determine successful adoption of DMC systems by small-scale farmers could have a major impact on poverty, as has been shown in the regions where it has been adopted.

The DMC (Direct Sowing, Mulch-based and Conservation agriculture) is a Global Partnership Program under GFAR. It aims to strengthen the capacity of key stakeholders to develop suitable DMC systems and to accelerate their wide adoption. The GP-DMC features a process of learning and synthesis. By analyzing and comparing experiences from decentralized initiatives, by synthesizing lessons learned, and by identifying and filling gaps, DMC practices can be harnessed by a wide range of stakeholders.

This initiative has been formally launched in January 2000 at a stakeholder meeting attended by representatives of National Agricultural Research Institutes, NGOs, International Agricultural Research Centers, regional networks and other institutions. Since March 2002, the Program has being implemented by a facilitator from IAPAR – the Agricultural Research Institute of the State of Parana, hosted by CIRAD. So far, the main activities are the development of a DMC Website and the implementation of case studies.

The first case study was carried out in Bolivia, in collaboration with ANAPO (the National Association of Oil-Seed Producers) at Santa Cruz de la Sierra. The first experiences with the No-tillage system started in 1986 as a result of farmers’ innovation. From 1994, ANAPO and CIMMYT launched research and development activities aiming at increasing the profitability of wheat-soybean systems, through technologies such as No-tillage. This systems has been increasingly adopted, and estimates show that almost half of the agricultural area in Santa Cruz de la Sierra. However, the adoption has occurred only among the medium and large-scale farmers, and the current efforts of ANAPO aims to foster the adoption by small-scale farmers.

The second case study that is being carried out is in Tanzania. This is being done under collaboration between FAO and DMC, under IFAD funding. This study was proposed by FAO as an assessment of labour saving technology / practices with focus on women farmers and vulnerable groups. Specifically, the study has the following objectives: 1) to verify that reduced tillage practices / conservation agriculture do save significant amounts of labour; 2) verify that vulnerable groups capable of adopting and practicing CA...
without taking too many risks with regards to their own food security and the stability of their livelihoods and 3) identify and overcome stumbling blocks which hinder the adoption of labour saving practices such as DMC. The study will be completed by late May.

The third case study is being carried out in Ghana, under a collaboration between the Sedentary Farming Systems Project, ICRA (The International Centre for Research oriented to development in Agriculture - Wageningen) and DMC. Farmers in the region practise zero-tillage using hand tools traditionally, but mainly in combination with burning. Now some are adopting the no-burn slash and mulch and use of herbicides and direct planting. Some of them have also started to rotate with mucuna as improved fallow. However, there is an urgent need to increase labour productivity. This could be done by introducing mechanised options for conservation farming. Tractor services for land preparation are prominent in the Savannah areas, but only in connection with disc ploughs. This practice has started to infiltrate also into the transitional zone of Ghana. Therefore, it is very important to stop this trend and to develop and offer mechanised services for conservation farming. Under this context, the study aims to find out whether mechanised options of conservation farming could be introduced considering social, ecological, technical and economical aspects; and to organise this in a way that access by small scale farmers to such services would be ensured.
Annex 6

Report to GFAR:
Activities of the DMC (Direct sowing, Mulch-based systems and Conservation agriculture)
Global Partnership Program
in 2005 & Perspectives for 2006 & beyond
Prepared by Bernard Triomphe (CIRAD), acting DMC coordinator, December 1, 2005

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Acknowledgments
DMC wishes to thank sincerely all those whose contribution was essential to implementing the activities reported in this document. Special thanks go to FAO, CIRAD, RELMA-in-ICRAF and GFAR for their financial support.
Introduction

This report describes the activities, achievements, and current perspectives of the GFAR-DMC (Direct sowing, Mulch-based systems and Conservation agriculture) Global Partnership Program over the period October 2004 to November 2005.

After having been in stand-by mode in 2004, DMC (or more exactly the DMC spirit) was very active throughout 2005, which was marked by the organization and holding of the Third World Congress on Conservation Agriculture in Nairobi in October 2005. A number of case studies on conservation agriculture were prepared under the coordination of DMC as inputs for this congress: selected preliminary findings are synthesized in this report.

A key objective of this report consists also of presenting the perspectives for a possible revival of the DMC program under a renewed format, constituency and mode of operation, to be launched in the second half of 2006.

Background information on DMC

According to the DMC work plan adopted in early 2002, the DMC Initiative (Direct sowing, Mulch-based systems and Conservation agriculture) is a Global Partnership Program (GPP) which aims to pull together and transform decentralized initiatives into global initiatives using a bottom-up approach. As such, it aims to strengthen the capacity of key stakeholders to develop suitable DMC systems and to accelerate their wide adoption.

At the core of the DMC program features an iterative and participatory process of learning and synthesis based on the development of case studies. Our belief is that systematization, synthesis and in-depth analysis of results and progress achieved by projects and initiatives featuring DMC systems in many parts of the world, complemented by the comparison of lessons learned, and by the identification of errors and gaps - not only with respect to DMC technologies and their performance, but also with respect to approaches and methods used – will facilitate the adaptation and adoption of DMC practices by a wider range of users.

The decision to launch the DMC program was taken in January 2000 at a stakeholder meeting attended by representatives of National Agricultural Research Institutes, NGOs, International Agricultural Research Centers, regional networks and other institutions, within the framework of GFAR. All agreed on the potential advantages of a global cooperation for fostering the worldwide adoption of DMC systems, and contributed to assigning a broad framework for the DMC initiative. However, DMC became operational in 2002 only, after CIRAD offered to fund the position for a full-time coordinator of the program. Between March 2002 and August 2003, Ms. Fatima Ribeiro (a Brazilian researcher from IAPAR) fulfilled the functions of DMC first facilitator, and was hosted by CIRAD in Montpellier. Since the end of 2003, and following the return of Fatima Ribeiro to Brazil, Bernard Triomphe (CIRAD) has been acting coordinator of DMC at the request of CIRAD. DMC was mostly in stand-by mode throughout 2004, a period which however allowed the identification of new opportunities for networking and collaboration. By contrast, 2005 was a very active year, mostly dedicated to launching and implementing a series of case studies on conservation agriculture (CA), as well as to participating in the preparation of the Third World Congress on Conservation Agriculture, held in Nairobi from October 3-7, 2005.

Stated objectives of the DMC program (as of early 2002)

The GP-DMC has a broad developmental goal:

- To help improve food security and alleviate poverty, while conserving natural resources and encouraging more durable forms of agriculture, by fostering broader use of sound agroecosystem management practices, especially those centered on direct sowing, mulch-based systems and conservation tillage.

In order to achieve this goal, it has the following purpose:

GFAR-DMC report, December 2005
• To strengthen the capacity of key stakeholders to develop suitable DMC systems, and to accelerate their widespread adoption.

It seeks to meet this purpose by achieving the following specific objectives:
• Provide a framework for analyzing and comparing stakeholder experiences with DMC systems.
• Synthesize and systematize lessons learned from decentralized initiatives.
• Identify gaps in what is known about developing and fostering the use of DMC systems, and encourage stakeholders to fill these gaps.
• Provide support and feedback to decentralized stakeholder initiatives.
• Foster the multiplication of successful experiences.

Main DMC-related activities, 11-04 to 11-05

During 2005, efforts were concentrated on 3 interlinked activities: (1) Developing case studies about CA, (2) Contributing to the organization of the IIIWCCA, and (3) Consulting with a wide range of stakeholders about the possible revival of DMC.

CA Case Studies

Launching a series of case studies on conservation agriculture constituted the bulk of DMC office and field activities over the period. The case studies were mostly funded thanks to a Letter of Agreement between FAO and CIRAD, with complementary funding from RELMA-in-ICRAF and GFAR Secretariat.

Objectives of the case studies

Based on an iterative formulation process, it can be expressed as follows:

A case study is a short-term, mostly qualitative study which offers a synthetic grasp of experiences and results with the application and use of Conservation Agriculture principles and technologies obtained in a specific region through past or on-going efforts and projects. It is developed around a unified, collectively agreed, locally adapted framework focusing on CA techniques and processes, on key issues and lessons learned, as well as on shortcomings and successes.

Important to notice in this definition is that a case study may encompass several successive projects having operated in a single region. Also, a case study looks not necessarily at successes with the application of CA but at key issues and lessons. Finally, a case study tries to balance technology and process issues.

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8 a concept coined by FAO, frequently used internationally, and which is basically equivalent to DMC
Partnerships around the CA Case study development process
Success with the case studies could not have been achieved without getting the prior agreement and active participation of a number of individuals and institutions involved in CA. Among the latter ones, the contribution of the following ones was especially important:

- FAO CA Working group, RELMA-in-ICRAF, African Conservation Tillage Network, selected members of the 3WCCA Organizing Committee, selected CIRAD colleagues involved in CA work.
- A number of resource persons and project members in countries / regions selected for developing case studies (see also Appendix 2 for a nominal list).

Selection of Case studies
As only a handful of case studies could be developed in 2005\(^9\), it was important to have clear criteria for picking them. The criteria identified included:

- Demonstrated strong local interest for participating in & coordinating CS development, and particularly existence of local commitment for allocating staff time and possible some resources (e.g. transportation, communication) for CS-related activities;
- Overall value-added of the CS for addressing key CA-related issues, and particularly for extracting original, worthwhile lessons on CA technologies and their performance, on CA diffusion & adoption processes, and/or on CA linkages to the overall Sustainable Agriculture& Rural Development picture\(^10\);
- Existence of local reports / documents on CA work and context, on the basis of which the case studies can be built;
- Complementarities with existing / on-going documentation efforts (this means for example that there is currently no document or similar effort under way that would make this exercise redundant);
- Existence of a minimum trajectory with CA adaptation & diffusion, including evidence of some initial impact of CA use at the farmer level\(^11\)

Based on a qualitative combination of these criteria, and following a start-up workshop in February 2004, the following case studies were selected (Table 1).
A significant proportion of the case studies is linked directly to the on-going CA-SARD and TCP projects operated through or by FAO in Kenya and Tanzania. For various reasons, not all case studies did start at the same time, and some of them did not cross the line in time and/or with the quality needed for their formal presentation at the 3WCCA.

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\(^9\) Ideally, this short-term project will be followed by a longer-term commitment by donors and key stakeholders to document CA experiences, under the hospices of ACT, DMC or any other adequate mechanism.

\(^10\) The selection of cases is however not be limited to “success stories”; some of the cases selected have actually experienced, or still are experiencing difficulties and challenges. What is important is that useful lessons may be gained from looking at what has happened so far.

\(^11\) Since it usually takes decades before large scale adoption takes place, very few case studies would have met the requirements of having witnessed a full-blown adoption process. Hence projects which are still at the beginning of the adoption phase (and thus presenting a significant project-dependency in that respect) have been selected, provided that the CA technologies were already being tested under farmers’ conditions at the commercial scale.
Table 1: List of case studies

<table>
<thead>
<tr>
<th>Case study</th>
<th>Climate &amp; type of farmers</th>
<th>Supportive Project</th>
<th>Team Leader</th>
<th>Present status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Kenya-Laikipia</td>
<td>Semi-arid Highlands, small and large</td>
<td>CA-SARD / KENDAT</td>
<td>Paul Wamai, CA-SARD</td>
<td>Draft report received</td>
</tr>
<tr>
<td>2 Kenya – Syaya</td>
<td>Humid lowland, small, vulnerable HH</td>
<td>CA-SARD</td>
<td>Kennedy Otieno, CA-SARD</td>
<td>Draft report received</td>
</tr>
<tr>
<td>3 Tanzania-Karatu</td>
<td>(to be completed)</td>
<td>CA-SARD</td>
<td>Dominick Ringo, RECODA</td>
<td>Draft report received</td>
</tr>
<tr>
<td>4 Tanzania – Arumeru</td>
<td>(to be completed)</td>
<td>CA-SARD</td>
<td>Catherine Maguzu, RECODA</td>
<td>Draft report received</td>
</tr>
<tr>
<td>5 Tanzania – Mbeya</td>
<td>(to be completed)</td>
<td>FAO-TCP</td>
<td>Sadii Mkomwa, ARI Uyole / TCP</td>
<td>Draft report received</td>
</tr>
<tr>
<td>6 Tanzania – Babati</td>
<td>Semi-arid / Small holders</td>
<td>RELMA</td>
<td>Elley Mbise / 2 Mfs Students from Sweden</td>
<td>Draft report received</td>
</tr>
<tr>
<td>7 Uganda</td>
<td>Humid to sub-humid / smallholders</td>
<td>FAO CA &amp; FFS</td>
<td>Paul Nyende, consultant</td>
<td>Draft report received</td>
</tr>
<tr>
<td>8 Ghana Brong Anaafu Ashanti</td>
<td>Rainforest transition / smallholders</td>
<td>FAO-RAFA / RELMA</td>
<td>Philip Boahen, consultant</td>
<td>Draft report received</td>
</tr>
<tr>
<td>9 Zambia</td>
<td>Different agro-climatic zones, strong CFU team, small holders</td>
<td>CIRAD-WWF</td>
<td>F. Baudron, CIRAD-WWF</td>
<td>Draft report received</td>
</tr>
<tr>
<td>10 CA by smallholders in Southern Brazil</td>
<td>Actual practices vs. theoretical CA &amp; adoption status</td>
<td>IAPAR / EPAGRI / UFSM</td>
<td>Sergio Pinheiro (EPAGRI), Telmo Amado (UFSM) and Fatima Ribeiro (IAPAR)</td>
<td>Started in October 2005</td>
</tr>
<tr>
<td>(11) CA in Rice-Wheat systems in the Indo-Gangetic plains</td>
<td>Irrigated / intensive systems / small &amp; large</td>
<td>Rice-Wheat Consortium</td>
<td>Raj Gupta and Olaf Erenstein (RWC)</td>
<td>stand-by (depends on identification of student)</td>
</tr>
</tbody>
</table>

**Case study development process**

The major steps followed and planned for developing case studies are summarized in Table 2. Table 2: Summary of Calendar and deadlines for the Case Study development process

<table>
<thead>
<tr>
<th>Date</th>
<th>Product / activity / output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early November 04</td>
<td>Project started, first brainstorming on framework, case study selection</td>
</tr>
<tr>
<td>Early December 04</td>
<td>Draft framework for discussion, preliminary CS selection</td>
</tr>
<tr>
<td>January 2005</td>
<td>Preliminary framework</td>
</tr>
<tr>
<td>Jan 31-Feb 4 2005</td>
<td>Start-up workshop with CS team leaders</td>
</tr>
<tr>
<td>February-March 05</td>
<td>Draft individual CS work plans sent to coordinator, individual work on framework and CS work plans</td>
</tr>
<tr>
<td>March –April 05</td>
<td>Initialization of CS field activities in each site</td>
</tr>
<tr>
<td>May-June 05</td>
<td>Mid-term review visits &amp; workshops at each CS site</td>
</tr>
<tr>
<td>July-September 05</td>
<td>End of CS field activities, analysis of information and write-up of draft CS</td>
</tr>
<tr>
<td>September 05</td>
<td>Draft Case study reports received, Comparative CS analysis and preparation of inputs (papers, posters, oral presentations) for 3 WCCA</td>
</tr>
<tr>
<td>Oct-3-7</td>
<td>Case study presentations &amp; posters during 3WCCA, Nairobi</td>
</tr>
<tr>
<td>Late 2005- Early 2006</td>
<td>Review, revisions &amp; professional editing of case study reports</td>
</tr>
<tr>
<td>March 2006</td>
<td>Workshop to prepare formal publication</td>
</tr>
<tr>
<td>mid- to end 2006</td>
<td>Formal publication of CS synthesis</td>
</tr>
</tbody>
</table>

**The Start-up workshop**

This key workshop was held in Nairobi (Kenya) from January 31 to February 4. It has been a crucial moment for sharing and refining the thinking about the CA Case study project with prospective CS team leaders and for launching the individual case studies themselves.
There were about a dozen participants, including prospective local case study team leaders, representatives of key stakeholders (FAO, ACT, RELMA-in-ICRAF, CA-SARD), external facilitator and special guests.

This start-up workshop was actually a joint workshop between this project and the SustaiNet / ACT project. SustaiNet is a German-funded project that started in early 2004 and has the objective of documenting successful local experiences with sustainable agriculture practices (including, but not limited to, CA) so that policy makers can be briefed about scaling them up.

At the workshop, significant time (1.5 days) was spent on days 1, 2 and 5 to share project description and progress achieved among the 2 projects (SustaiNet and CA Case study). This allowed the CA Case Study group to have a good look at the proposed SustaiNet framework and to extract some relevant issues and questions for its inclusion and adaptation to its own needs.

With the remaining time (about 3 days), the CA Case study group was able to address and achieve the following objectives:

- Share, refine and agree among project coordination and proposed local team leaders about the overall project objectives and design
- Discuss and adjust the proposed framework.
- Develop preliminary work plans for individual case studies (including specific activities and sites, human resources, budgets, calendar, etc…)

Another objective achieved process-wise was the creation and emergence of a CA case study team.

The CA case study framework

Preliminary Identification of issues

Based on the activities developed in the early stages of the LOA, the following issues, rephrased later as questions, appeared critical for structuring the framework around which all case studies will be based. They have been grouped under 3 overarching headings:

1. Specific technical aspects related to CA systems
   (1) What are the key obstacles, challenges and way forward with weed control in CA?
   (2) Under what conditions does CA actually lead to labor savings for farmers?
   (3) What are the key obstacles, challenges and way forward related to crop-livestock interactions within the context of the use and adoption of CA systems?
   (4) What are the key obstacles, challenges and way forward for CA in low rainfall / semi-arid areas?

2. CA learning and adoption processes
   (1) What does it take to “learn” CA both at the individual and collective levels (activities, processes, etc.)?
   (2) What influence does the Mindset of farmers, technicians and researchers for change have on CA adaptation and adoption processes?
   (3) What are the relative roles of technology transfer vs. local development adaptation in large-scale adoption of CA systems?
   (4) What are the entry points and pathways that have led to the large-scale adoption of CA? Are some of them more appropriate than others?
   (5) Have large farmers a comparative advantage in adopting CA, which one and why? Under what conditions can CA work for smallholders & resource-poor HH?
   (6) What are the key lessons learned regarding the scaling up of the adoption of CA? Do’s and don’t, and why

3. Generic description of the context of the CA work / project
   (1) Biophysical and socio-economic and institutional environment of CA work,
(2) Trajectory of CA-related work in the selected site/region/project,
(3) Description of CA technologies,
(4) An overview of CA adaptation and diffusion process,
(5) CA Impact
(6) Present gaps and challenges in CA work.

The Framework after the Start-up workshop

Following the start-up workshop held in Nairobi, the draft framework was significantly re-shuffled as well as further developed by the workshop participants (see Appendix 3). At the end of the workshop, and as a results or several collective brainstorming sessions, a rather long list of questions/issues had been identified and structured along 6 main headings, following those proposed for the generic description of the context of the CA work/project (see above). Also, a number of these specific questions/issues had been borrowed from the SustaiNet self-assessment guidelines, proving the value of holding a joint workshop. On the other hand, the distinction between key issues and descriptive ones had been blurred. Finally, it is important to note that there was not enough time available during the workshop to proceed to its local adaptation to the specific needs and context of each case study. This adaptation remains to be done by each Case Study team, to avoid the risk of trying to answer to irrelevant questions, or missing important aspects of the local CA experience altogether.

The operational framework

Additional work on the framework done in late February and March allowed to further refine the framework which tries to combine several features:

- Reflect the main contributions of all those who took time to structure and enrich the framework
- Incorporate issues and questions identified in previous CA case studies or documentation efforts
- Meet a number of criteria identified during the start-up workshop such as the S.M.A.R.T criteria
- Give overall coherence and formal rigor to the different contributions

After some further editing, it constitutes the operational framework that the different CA Case study teams have been asked to use for structuring their work. It consists of the following seven sections:

1. Context
   - biophysical, socio-economic, farming systems
2. History of CA work
   - When, who, what, where
3. Description of CA Technologies
   - Specific CA technologies being promoted, compared to existing practices and systems
4. CA Adaptation & diffusion process
   - What, how, by and with whom
5. CA adoption & impact
   - Adoption figures
   - Agronomic, economic and social aspects
6. Gaps & challenges in CA work
7. List of key questions & issues especially relevant for each case study
Most certainly, it is after putting this framework to actual use that a number of inconsistencies, difficulties or even confusion will surface. Hence one can safely predict that the «final» framework will only emerge out at the end of the Case Study development process, as a result of a careful assessment of the actual value of the operational framework used by the various CS teams. While slower than expected at the onset of the case study development process, the iterative nature of the framework development process will eventually allow a thorough, collective validation of the proposed framework.

**Selected results**

The following tables represent a preliminary cross-analysis of five case studies for which a quality draft had been developed by September 2005. They follow the structure of the Case Study framework, with specific details about how the 3 principles of CA (minimum soil disturbance, adequate soil cover & diversified crop rotations) are being applied by farmers.
### Key characteristics of case study sites

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Site</th>
<th>Central Ghana</th>
<th>Southern Zambia</th>
<th>Northern Tanzania</th>
<th>Southern Brazil</th>
<th>Indo-Gangetic Plains</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of climate</strong></td>
<td></td>
<td>Sub-humid, hot,</td>
<td>Semi-arid (650-1000 mm),</td>
<td>Semi-arid to sub-humid, hot</td>
<td>Humid,</td>
<td>Semi-arid w/ irrigation,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 cycles</td>
<td>hot, 1 cycle</td>
<td>to cool, 1 - 2 cycles</td>
<td>sub-tropical, 2 cycles</td>
<td>sub-tropical, 2 cycles</td>
</tr>
<tr>
<td><strong>Main Type of agriculture</strong></td>
<td>subsistence, manual or DAT</td>
<td>subsistence, manual or</td>
<td>subsistence, manual or DAP</td>
<td>Diversif. crop-livestock,</td>
<td>High-input,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DAT</td>
<td></td>
<td>DAT or mechanized</td>
<td>mechanized</td>
<td></td>
</tr>
<tr>
<td><strong>Typical farm size</strong></td>
<td>2-5 has</td>
<td>2-5 has</td>
<td>&lt; 1-2 has</td>
<td>20-50 has</td>
<td>1-3 ha</td>
<td></td>
</tr>
<tr>
<td><strong>Conventional cropping systems</strong></td>
<td>Slash-and-burn maize &amp; root crops</td>
<td>Low-input maize and cotton</td>
<td>Low-input maize intercropped w/ beans &amp; PP, bananas, etc.</td>
<td>Cereals / beans / Tobacco / pastures</td>
<td>Rice-wheat</td>
<td></td>
</tr>
<tr>
<td><strong>Key agro-environmental constraints</strong></td>
<td>Soil fertility degradation &amp; deforestation</td>
<td>Soil fertility degradation &amp; Drought</td>
<td>Drought, soil fertility degradation &amp; Erosion</td>
<td>Erosion, low soil fertility</td>
<td>Soil fertility degradation, water shortages &amp; excesses</td>
<td></td>
</tr>
<tr>
<td><strong>Key socio-economic constraints</strong></td>
<td>Poverty, weak markets, land tenure systems</td>
<td>Poverty, weak markets, HIV/AIDS</td>
<td>Poverty, land tenure, HIV/AIDS</td>
<td>Diversif. of livelihood sources, urban emigration</td>
<td>Poverty, poor infrastructure, social insecurity</td>
<td></td>
</tr>
<tr>
<td><strong>Start of CA efforts since?</strong></td>
<td>10-15 years</td>
<td>10-15+ years</td>
<td>3-5+ years</td>
<td>20+ years</td>
<td>15-20 years</td>
<td></td>
</tr>
<tr>
<td><strong>Available CA documentation</strong></td>
<td>Few, good</td>
<td>Few good</td>
<td>Very weak</td>
<td>Plenty, good</td>
<td>Plenty, good</td>
<td></td>
</tr>
</tbody>
</table>

Comment: there is a huge diversity of environments both in agro-ecological and socio-economic conditions among selected case studies. However, there is a prevalence of poverty and small holder farming.
## CA recommended vs. practiced by small holders

<table>
<thead>
<tr>
<th>CA principle</th>
<th>Site</th>
<th>Central Ghana</th>
<th>Southern Zambia</th>
<th>Northern Tanzania</th>
<th>Southern Brazil</th>
<th>Indo-Gangetic plains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tillage intensity?</td>
<td></td>
<td>Minimum tillage or NT</td>
<td>Planting basins or Ripping (RT)</td>
<td>RT (ripping) or NT</td>
<td>Usually NT</td>
<td>NT 1 cycle out of 2 (shifting to full NT)</td>
</tr>
<tr>
<td>Is soil cover being achieved?</td>
<td></td>
<td>Frequently, via CC &amp; fallow slashing</td>
<td>Usually no</td>
<td>Seldom, except via rotations with CC</td>
<td>Generally, via CC &amp; crop residues</td>
<td>Partially, via crop residues &amp; brown manuring</td>
</tr>
<tr>
<td>Are rotations being diversified?</td>
<td></td>
<td>In some cases</td>
<td>Seldom</td>
<td>Thru intercropping w/ Dolichos, PP &amp; other M-P CC</td>
<td>Yes, both for main crops &amp; CC</td>
<td>Yes with PP, lentils, chickpea, maize</td>
</tr>
<tr>
<td>Other components of the CA package</td>
<td></td>
<td>Herbicides</td>
<td>Apply External Inputs, weed continuously</td>
<td>(Improved AF fallows) Contour &amp; fodder banks</td>
<td>--</td>
<td>Raised (permanent) Beds, Controlled traffic</td>
</tr>
<tr>
<td>Main differences between practice &amp; recommendation</td>
<td></td>
<td>Little use of cover crops, lack of implements</td>
<td>No continuous weeding, little dry land preparation</td>
<td>Significant soil disturbance via manual weeding</td>
<td>Periodic tillage</td>
<td>Tactical adjustments = f (climate)</td>
</tr>
</tbody>
</table>

Comment: In every case study, all CA projects advocated roughly the same basic three principles even though not necessarily with the same emphasis on each one of them. Actual use of these 3 principles by farmers differs markedly among case studies. In very few instances are the 3 principles applied simultaneously.

## Availability & access to CA equipment

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Case</th>
<th>Central Ghana</th>
<th>Southern Zambia</th>
<th>Northern Tanzania</th>
<th>Southern Brazil</th>
<th>Indo-Gangetic plains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand jab planter</td>
<td>Incipient</td>
<td>No</td>
<td>Pilot scheme</td>
<td>generalized</td>
<td>(marginal)</td>
<td></td>
</tr>
<tr>
<td>DAP ripper</td>
<td>(not applicable)</td>
<td>Regular (own, hired or borrowed)</td>
<td>Pilot scheme</td>
<td>(not applicable)</td>
<td>(marginal)</td>
<td></td>
</tr>
<tr>
<td>NT seed drills</td>
<td>No</td>
<td>Not for smallholders</td>
<td>Pilot scheme</td>
<td>Generalized both for DAP and motorized</td>
<td>Generalized, own or hired for wheat planting &amp; other crops</td>
<td></td>
</tr>
<tr>
<td>Herbicide sprayers</td>
<td>Regular, mostly through hiring</td>
<td>Increasing (Zamwipe)</td>
<td>Yes</td>
<td>Generalized</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Other key CA implements</td>
<td>hoe, cutlass, dibblestick</td>
<td>Chaka hoe</td>
<td>Knife-rollers, onion hoe</td>
<td>Knife-rollers</td>
<td>Raised bed planters, laser leveling systems</td>
<td></td>
</tr>
<tr>
<td>Local design &amp; manufact. of CA equipment?</td>
<td>Experimental + imports</td>
<td>Yes</td>
<td>From Experimental to in place (rippers)</td>
<td>Yes, many options</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Comment: Availability and access are still far from being generalized in most case study sites, which is a major obstacle to the successful application of CA.
### Weed control under CA

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Case</th>
<th>Central Ghana</th>
<th>Southern Zambia</th>
<th>Northern Tanzania</th>
<th>Southern Brazil</th>
<th>Indo-Gangetic plains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main method(s) practiced</td>
<td></td>
<td>Herbicide &amp; manual weeding</td>
<td>Manual weeding</td>
<td>Manual weeding</td>
<td>Soil cover, Cover Crops &amp; Herbicides</td>
<td>Herbicides + hand weeding</td>
</tr>
<tr>
<td>Contribution of cover crops</td>
<td></td>
<td>Marginal to strong (Imperata)</td>
<td>None / marginal</td>
<td>marginal</td>
<td>strong</td>
<td>Marginal still</td>
</tr>
<tr>
<td>Contribution of soil cover</td>
<td></td>
<td>Strong after fallow</td>
<td>None / marginal</td>
<td>None / marginal</td>
<td>Usually strong</td>
<td>Increasing</td>
</tr>
<tr>
<td>Labour savings achieved?</td>
<td></td>
<td>Yes with herbicides</td>
<td>Labour INCREASES</td>
<td>Variable</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Possible future directions</td>
<td></td>
<td>Herbicide &amp; cover crops?</td>
<td>Herbicide &amp; cover crops?</td>
<td>Herbicide and cover crops?</td>
<td>Herbicide-free CA?</td>
<td>Intercropping, brown manuring</td>
</tr>
</tbody>
</table>

Comment: While CA principles emphasize the role of soil cover and cover crops as means for achieving weed control, very few farmers are able to do it, and hence they rely on labour-intensive weed control or difficult to afford herbicides.

### Competition for residue and biomass use

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Case</th>
<th>Central Ghana</th>
<th>Southern Zambia</th>
<th>Northern Tanzania</th>
<th>Southern Brazil</th>
<th>Indo-Gangetic plains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of crop-livestock competition</td>
<td>Weak</td>
<td>strong</td>
<td>Strong</td>
<td>weak</td>
<td>??</td>
<td></td>
</tr>
<tr>
<td>Main use of existing biomass</td>
<td>Soil cover</td>
<td>Fodder</td>
<td>Fodder</td>
<td>Soil cover</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other uses of biomass</td>
<td>(burning)</td>
<td>Compost (burning)</td>
<td>(fuel)</td>
<td></td>
<td>Partial burning</td>
<td></td>
</tr>
<tr>
<td>Constraints for changing uses</td>
<td>(change of mindsets)</td>
<td>Strong (collective by-laws)</td>
<td>Strong</td>
<td>Mostly Individual decisions</td>
<td>weak</td>
<td></td>
</tr>
</tbody>
</table>

Comment: Crop residues and biomass are usually the object of fierce competition between agriculture (for use as soil cover) and livestock (for use as fodder), to the advantage of this latter. Constraints for changing this situation are high.
## Approaches to CA adaptation and diffusion

<table>
<thead>
<tr>
<th>Area</th>
<th>Case</th>
<th>Central Ghana</th>
<th>Southern Zambia</th>
<th>Northern Tanzania</th>
<th>Southern Brazil</th>
<th>Indo-Gangetic plains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main approaches used until now</td>
<td>T &amp;V / Participatory</td>
<td>Linear / TOT</td>
<td>Participatory / FFS</td>
<td>Linear / participatory</td>
<td>Participatory</td>
<td></td>
</tr>
<tr>
<td>Entry points for diffusion</td>
<td>Input packages</td>
<td>Input packages &amp; training</td>
<td>Learning / access to CC seeds &amp; implements</td>
<td>Watershed erosion control measures</td>
<td>Access to implements, Crop establishment</td>
<td></td>
</tr>
<tr>
<td>Role of farmers-innovators</td>
<td>F-F diffusion</td>
<td>Weak</td>
<td>Thru FFS</td>
<td>Strong</td>
<td>Strong</td>
<td></td>
</tr>
<tr>
<td>Coordination among stakeholders</td>
<td>Partial</td>
<td>Strong</td>
<td>Weak</td>
<td>Strong</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Lead Stakeholders</td>
<td>Gov, Donors, Private sector</td>
<td>F. Org, Gov, NGOs</td>
<td>Gov, Research, Donors, NGOs</td>
<td>Gov, Research, (large-scale F. Org.)</td>
<td>Farmers, Research, Universities, Manufacturers</td>
<td></td>
</tr>
<tr>
<td>National Policy framework in place?</td>
<td>no</td>
<td>Yes</td>
<td>Under construction</td>
<td>yes</td>
<td>Needs upgrading</td>
<td></td>
</tr>
<tr>
<td>Large-scale adoption so far?</td>
<td>Partly but went down after projects terminated</td>
<td>Partly / linked to input subsidies</td>
<td>No (too early)</td>
<td>Yes since 1990s</td>
<td>Yes since 2001 but partial (1 cycle / 2)</td>
<td></td>
</tr>
</tbody>
</table>

Comment: Approaches to CA adaptation and diffusion cover a wide spectrum, from rather top-down to highly participatory, farmer-led ones. This usually depends on which stakeholders are involved in coordinating the efforts. Policy frameworks are seldom in place which would facilitate large-scale CA adoption.
## Key challenges & The way forward

<table>
<thead>
<tr>
<th>Area</th>
<th>Case</th>
<th>Central Ghana</th>
<th>Southern Zambia</th>
<th>Northern Tanzania</th>
<th>Southern Brazil</th>
<th>Indo-Gangetic plains</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key technical challenges</strong></td>
<td></td>
<td>Multiple-purpose cover crops</td>
<td>Cover crops, rotations &amp; soil cover</td>
<td>Soil cover / Diversifying CC</td>
<td>Herbicide-free CA</td>
<td>CA systems for rice cycle, seed metering systems, Genotypes, weed resist.</td>
</tr>
<tr>
<td><strong>Key organizational challenges</strong></td>
<td></td>
<td>Access to jab planters &amp; sprayers, Local markets for CC seeds</td>
<td>Access to new equipment, Changing grazing by-laws</td>
<td>Local manufact. &amp; access to implements, integration of livestock</td>
<td>??</td>
<td>Information systems</td>
</tr>
<tr>
<td><strong>Key institutional / policy-related challenges</strong></td>
<td></td>
<td>Effective national CA coordination and policy</td>
<td>Rethink Input Subsidies?, change image of CA</td>
<td>Adoption of a national CA policy</td>
<td>Livelihood sources for small scale farmers, Carbon credits?</td>
<td>Land tenure, more productive subsidies, support prices for non-tradit. Crops</td>
</tr>
<tr>
<td><strong>Key challenges re: approach</strong></td>
<td></td>
<td>Continuity of efforts / Role of subsidies and input package</td>
<td>More flexible, participatory approaches Better targeting of CA packages</td>
<td>Scaling-up of FFS approach</td>
<td>Maintain or revive interest for further CA work</td>
<td>Funding, CA champions, How to provoke shifts in mindsets</td>
</tr>
</tbody>
</table>

Comment: Challenges are numerous, ranging from technical issues to organizational and institutional ones. Approaches also need to be modified if large-scale adoption is to take place.
Selected lessons gained from the case study development process

Technical issues related to CA development and implementation

- Most farmers in most places are yet to apply “full” CA either because they are just starting on the CA pathway (relatively new efforts and projects), or because they are not likely to ever do it... In both cases, there is a real need for developing & promoting more diverse CA systems, instead of simply spreading the theoretical gospel about CA in the form of a rigid blanket recommendation which does barely take into account local conditions and needs.

- Achieving soil cover either via CC or via crop residues represents a major technical & organizational challenge, except perhaps in more humid climates

- Herbicides have a crucial role to play in initial phases of CA adoption. Without relying on them, weeding (and especially manual weeding) might become a nightmare for small holders with severe labour and time constraints. More efforts are needed to identify suitable cover crops & to achieve soil cover if herbicide dependency is deemed undesirable.

- Availability & access to CA equipment still represents a major hurdle / issue before large-scale adoption can take place.

- Replacing a food legume used traditionally in intercropping schemes (such as beans) by a cover crop might not necessarily be straightforward not wise for farmers whose primary objectives include achieving food security.

Process issues

- Today, many projects and teams tend focus too heavily on field scale technical CA issues, and not enough on non-field, non technical, and non-exclusively CA ones : this bias prevents them from identifying and addressing some of the systemic aspects of CA development and introduction into existing farming systems.

- Beyond the technical issues, there is a real need for projects and institutions involved in CA work to develop and implement more participatory & flexible approaches, focusing on all relevant scales, and with farmers more clearly in the driver’s seat

- The role of Indigenous knowledge and practices in CA work has frequently been overlooked by projects perhaps too keen on transferring external CA knowledge and technology packages as a way of duplicating success stories obtained in Southern Brazil.

- Most case studies demonstrate that reaching “success” with CA adoption will take quite some time (decades?). Hence one cannot avoid asking the question: is it actually worth the wait & efforts, compared to focusing on other technologies (e.g. agro-forestry) and options (e.g. agro-processing) for improving the livelihoods of small holders (notion of opportunity costs)?

- Who are the target farmers of most CA projects? Is it the “average” farmer or only the “elite” farmers with whom agronomists love to interact so much that they somehow forget about the other types of farmers, less interested perhaps to a technology and innovation that is agronomically and environmentally correct but in most cases economically difficult to implement? Not to mention the special challenges faced by vulnerable households, such as those affected by HIV/AIDS and acute poverty.

Relevance of Case study for DMC

Case studies undertaken in 2005 but also in previous years have undoubtedly proven quite useful to unearth lessons relatively rapidly, and to allow learning & sharing both at the local & international levels. Yet proper documentation is certainly not an easy task. For example, lots of requited data for inclusion in a case study are not readily available nor quite trustworthy (e.g.
yields, adoption rates). Also, people in the field are experiencing significant difficulties in appropriating and using a common framework. To overcome this, investments in nurturing, accompanying and quality control are required by outsiders. Hence a relevant question to ask is who should be in charge of the documentation. There is certainly a unique role for local researchers, in true partnership with other stakeholders in the regions. Another issue related to the need (and difficulties) for doing a good job at it on real time. The CA field is moving very fast, and what were considered valid, extrapolable lessons just a few years back are rapidly being superseded by new lessons obtained in some of the many CA-related projects around the world. This would indeed indicate the need to promote and implement effective participatory M&E schemes among CA projects rather than relying on externally-driven case studies, which cannot easily be multiplied.

Towards the revival of DMC: the global CA facility Task Force

Effective collaboration among key actors of the CA movement and support to CA champions and catalysts on the ground are frequently considered key factors for improving global knowledge and awareness about CA, and for achieving better adoption of CA principles and technologies wherever they may have a role to play to contribute to better livelihoods for farmers and more sustainable agriculture and rural development.

Past efforts to organize CA stakeholders at the regional / continental levels have met with a fair degree of success (see for example CAAPAS in Latin America, or ACT in Africa), while other networking efforts (such as the GFAR-DMC network or RELACO) have not delivered their promise for a number of reasons. All in all, there remains a lot to be done to improve and increase the exchanges among actors and have them benefit more from each other’s experiences. To address the underlying challenges, two parallels efforts got under way by end of 2005: early 2006:

- On one hand, the II World Congress on Conservation Agriculture, held in Iguassu (Brazil) in August 2003 recommended to the organizers of the Third World Congress on Conservation Agriculture (3WCCA, to be held in Nairobi in October 2005) to conduct efforts to “move towards the establishment of an International Coordinating Committee for CA which would interconnect national and regional efforts, perhaps through a web-based platform, to facilitate sharing of information on CA study tours, international training schemes, publications and congresses/seminars, etc…”

- On the other hand, there was a need to re-assess the foundations of the GFAR-DMC program and re-validate its objectives, activities, funding mechanism or even its institutional set-up and affiliation.

Since both efforts shared partly the same rationale and objectives, a multiple stake holder task force, under the chaired leadership of DMC and ACT, was established in April 2005, with the objective of defining the factors and conditions for (re)establishing a global platform / networking mechanism on CA by early to mid- 2006.

Specific objectives of the Task force

To reach the global objective stated above, the following 5 short-term sub-objectives were identified.

a) Review critically evidence about existing international CA networks, their cost, usefulness, impact, as well as the problems and issues they are facing;

b) Assess critically the desires, needs & priorities of key stakeholders for(re) establishing a viable global CA platform.

c) Articulate a clear mission statement for creating and operating such a global CA platform.

---

gfAR-DMc report, December 2005
d) Facilitate collective discussion about, and wide agreement on, this vision
e) Assist in translating the agreed-upon mission into a functioning global CA platform

**Expected outputs of the Task force**

Three main outputs are expected by early 2006:

1. A well-attended, well-facilitated *special session at the 3 WCCA* in Nairobi in October 2005, allowing a wide brainstorming on any issues or draft proposals related to this global CA platform.

2. A *synthetic, professionally edited concept note* articulating a vision for establishing and operating a global CA platform, reflecting feedback received and outlining rationale, character, objectives and functions, activities, staffing, governance and funding sources / mechanisms, etc.

3. At least one *pre-proposal* meeting specific donor’s formats and requirements, ready to be transformed into a full-fledged proposal.

**Activities conducted by the Task force in 2005**

To meet the objectives outlined above, and develop the various outputs, the following key activities have been implemented:

1. Develop, and send a short, focused *questionnaire* directed at key CA stakeholders / constituencies;
2. Conduct semi-structured *interviews* with key resource persons during field visits and international trips undertaken by Task force members or by phone;
3. Organize and conduct a *special session* during 3WCCA.

(see details in Appendix 3, 4 and 5)

**Selected outputs of the Global CA Task Force**

Based on the 3 activities mentioned above, the following outputs were obtained by early November 2005.

**Present status of CA networking**

Several types of CA networks exist today, including national initiatives (e.g. KCTI, GSDM, AAPRESID, FEBRAPDP, FNACS), continental networks (ACT, CAAPAS, ECAF), institutional networks (CIMMYT, CIRAD, FAO), project networks (e.g. KASSA, an EU-funded which ends in 3/06). There are also other networks not necessarily focused purely on CA but with a CA component.

At this moment, there are no operational global CA network, even though there are many interactions among the above networks, mainly on an ad hoc / informal / inter-personal basis: in particular, GFAR-DMC has not yet operated as a real global network and is still in transition phase at the moment.

The key current networking activities implemented to various degrees by the existing networks include the following:

- *websites, newsletters, training events, workshops and congresses,*
- *Exchanges / sharing of experiences, advances, equipments*
- *Cross-visits by beginners & flying experts alike*
- *Production & access to (quality) CA-related information & knowledge*
- *Databases of contacts*
- *Lobbying for support to CA efforts (funding, policies)*

What seems to have worked particularly well for existing networks include

- *Exchange field visits & traveling seminars across countries (regional, international)*
• Training workshops (local, national, regional)
• Periodic face-to-face meetings & congresses
• Flying experts (for example from Southern Brazil as consultants to CA projects in Africa)

Overall, it seems that institutional & continental networks have been useful & relatively close to demands / needs by members.

**Orientation of the global CA facility**

The major consensus reached during the special session organized during the 3WCCA was that there is a need to create / strengthen a global community of practice around CA. Some of the concrete options / avenues for concretizing this community for implementing useful, value-adding activities include:

• **Improve exchange and sharing of information about CA.**
  - A top priority is to get out and circulate relevant publications & articles in appropriate medias. The main issue and effort is to identify non-scientific publications and media with the potential to reach and inform all members of the CA community and other relevant stakeholders of civil society at large. A compilation of potential journals + readership is needed to assess precisely the situation.

• **Document different experiences and approaches, and especially what works and how**

• **Take the CA community from Congress to Congress in an organized, systematic manner**

• **Monitor advances and gaps in CA knowledge, influence the orientation of CA-related research agendas, and also contribute to generate the missing knowledge** (some noted that this is however a function that existing research institutions already fulfill and should intensify in the future)

• **Contribute to make the link among existing bodies of CA-related knowledge / information, and also create / strengthen the link between CA knowledge and CA practice.**
  - Participants specifically noted that linkages and synergies are required among continental CA networks such as ACT, CAAPAS (the actual way of doing it remains unclear: thru a network of networks? A secretariat?), and with stakeholders and thematic areas beyond the CA insiders, such as key international policy areas and bodies related to climate change, millennium assessment of ecosystems, MDGs, etc.
  - Dedicated people and internet-based services are probably required to do the linkage, since high transaction costs and lack of time prevent field-based people from achieving linking in their routine activities (FAO may be a focal point for helping with this function)

• **Organize travelling seminars across regions (e.g. on the model of what has been done in the RWC: visit by concerned people to Australia to assess options for dealing with planting under heavy straw residues conditions).**

• **Lobby with global bodies (e.g. GEF) about the need to fund CA work worldwide and about funding for a global CA mechanism**
  - it could be very useful to identify a political scientist ready to fight for the CA community at the highest level (such as Sanchez, Sachs)

As a complement, people who answered the electronic survey noted also the following aspects

• **Putting people into contact**
• **Organizing workshops & meetings**
• **Training & Education**
• **Questions & answers service**
• **Getting funds for CA work at field level**

On the cautionary side, participants in Nairobi noted the following:

• Organizing world congresses could actually be the platform we are talking about
• Continental networks are enough: what is needed is to identify pressing issues and have them be worked upon by existing networks
• Beware – make sure there is added value of the proposed new global mechanism & activities. What
can networks actually do that will respond to priority needs & demands of their members?
• Before settling on a form for this CA facility, it is critical to learn from success and failures of other
networks (not related to CA).
• Is what is required sharing knowledge or rather improving CA products (such as technologies, or
approaches to diffusion) intended for grassroots beneficiaries?
• Who is in the drivers’ seat? Farmer organizations fear too much power & influence be given
to official institutions. On the other hand, one should avoid creating dependencies on one
type of stakeholder (e.g. private sector)
• Do not create yet a new, expensive and mostly cosmetic layer of networking
• Getting adequate funding is very important for the proper operation of this would-be Global
CA facility. Relying on members’ fees and self-funding only offers very limited
possibilities of implementing meaningful activities.

**Third World Congress on Conservation Agriculture**

The IIIWCCA was held in Nairobi (Kenya) from October 3-7, 2005, after about 18 months of
preparations by a small core group of about 8 to 10 people, including a representative from
DMC.

The Congress was attended by just below 600 participants from some 62 countries. This
included an active presence of farmers (over 100), private sector and policy makers including
two Ministers of Agriculture (Zambia and Lesotho) and representation from the African Union’s
New Partnership for Africa’s Development (AU-NEPAD) and the UN Hunger Task Force, to
mention a few.

Additional to some 16 keynote plenary presentations, the IIIWCCA benefited from 48
presentations in 17 mini workshops and related facilitated discussions. There were also over 140
full paper and expanded poster abstracts that were submitted to the Congress with many of them
made available to participants in the Congress cd. Out of these, a significant number of them
related to the CA case studies (see above, and also Appendix 1).

Thirty (30) Information kiosks by various local and international organizations, over 50 well-
illustrated posters, some video shows and farmer-role-plays were some of the other Congress
programme activities aimed at enhancing sharing and interactions during the Congress. A
number of interest group meetings on various subjects were also held during the Congress days.
Organized within the framework of developing a Conservation Agriculture Knowledge and
Information Management Forum (CA-KIMF), the congress was organized and facilitated in a
manner that ensured intensive and critical discussions/sharing with mechanisms to “capture” as
much of the information/knowledge shared. The Congress evolved great interest and
“momentum” for collaborations to promote (enhance the promotion of) conservation agriculture
– as was also largely reflected in the end-of-congress statements by various interest groups,
namely, the Private Sector, Farmers and Policy makers and in the final Congress synthesis (see
also Appendix 7).

All in all, the Congress can be considered to have been quite a success, as it allowed active
interactions among diverse stakeholders and the emergence of new CA-related information. On
the slightly down side, logistics and the Congress programme were somewhat chaotic at times,
while the participation of representatives from outside Africa was modest. Nevertheless,
participants supported wholeheartedly the decision to organize a fourth World Congress on
Conservation Agriculture in India in a little more than 2 years time.
Perspectives: 2006 and beyond

Case study completion and synthesis

Draft review & production of “final” drafts
All case study drafts received so far still need to be reviewed thoroughly. Once the corresponding comments will have been received, the case study leaders will need to take these comments into account and come up with a second (or third) version of their drafts, if possible no later than December 31, 2005. These new drafts will hopefully meet the requirements to be considered as "final" drafts, if not, another round of comments and draft will be needed. Alternatively, we may decide that some case studies will never make it into the final draft form.

Final workshop-writeshop
In March 2006, a workshop / writeshop will be organized with the authors of good-quality “final” drafts, to work together on a final product suitable for formal publication. The final product, which will hopefully be co-published by the major stakeholders (CIRAD, FAO, GFAR, RELMA/ICRAF) will consist of an integrated publication, analyzing and synthesizing in a comparative manner the diverse thematic areas covered by the case studies, combined with synthetic overviews of the most interesting individual case studies.

Establishment of a global CA facility
The following activities will be implemented in 2006 by a small task force nominated during the 3WCCA.

- develop by March 2006 a concept note outlining the contours of a viable global CA facility, and share it with a broad range of stakeholders, partners and potential donors.
- Identify stakeholders and donors willing to fund the activities of the global CA facility
- Catalyze the development of a proposal for submission to one or several donors

Concluding comments
2005 has been a very busy year for DMC, despite the fact that DMC continues to be in a transitional phase of its short existence. Major activities such as case studies or even the organization of the Third World Congress on Conservation Agriculture may actually be considered as corresponding to some of the core functions of what the future “renewed” DMC network will need to undertake if it wants to respond to perceived needs for international networking.

Compared to its original objectives, the main departure has been the provisional inability of DMC to link up with regional fora. Let’s hope that this weakness will be tackled in the renewed DMC.