

**ANNUAL WORKSHOP
OF THE INLAND VALLEY CONSORTIUM - IVC**
(HELD AT COTONOU, BENIN 4TH TO 8TH APRIL 2005)



**SUMMARY REPORT OF
PRESENTATIONS AND GENERAL DISCUSSIONS**

May 2005

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Introduction by the President of the IVC Consortium Management Committee

Opening Speech Annual Workshop IVC 2005

DG INRAB, President of IVC, colleagues from the National Agricultural Research Institutes, colleagues from International Organizations, WARDA staff, ladies and gentlemen. Welcome to the 11th annual workshop of IVC. Yes, IVC is now 11 years old, almost 12 if you count from its inauguration. As some of you will remember, IVC was inaugurated in June 1993 and, with the arrival of the scientific coordinator at WARDA, became operational in 1994.

The presence today of quite a number of familiar faces, who were also present at the inauguration shows the commitment by its members to the Consortium. Even the return of founding members, albeit in a different capacity, shows how devoted its members are to the IVC cause. IVC is based on successful partnership between national research institutes and international organizations, advanced research institutes and sub-regional organizations. Despite two forced evacuations of the co-ordination team, the spirit of IVC is apparently still very much alive.

A Center-Commissioned External Review of IVC (or CCER in CG language) was held last September and on the whole its outcome was positive. It recommended a third phase. The first phase focused on characterization, the second phase focused on regionalization. According to the recommendations of the CCER, the third phase should continue along the road of regional projects (i.e. cross-border projects in benchmark areas) and multi-annual projects, while IVC should also become more professional.

Embarking on Phase III

This workshop is going to be different to the previous ones that you have been used to. It will focus on planning Phase III in all its aspects. That includes particular focus on a new strategic plan, but also on priority areas, modus operandi, functioning and tasks of the operational structures of the Consortium, such as the Regional Coordination Unit, the National Coordination Units and the Consortium Management Committee. If there is room for improvement of IVC, here is your chance to implement it. I advise you to use this opportunity well.

But this meeting will also focus on resource mobilization. As with Phase II, the implementation of a bigger and more ambitious program needs additional funding and I am glad that one of the sessions is devoted to identifying possible sources of additional funding.

Ladies and gentlemen, this is a crucial meeting. You are going to plan the next five years of the Consortium. If you come up with a solid plan and a good financial strategy, the Consortium still has a long life stretching before it. So, I would like you to be aware of the importance of this week because when you leave these premises on Friday you will not only have made a substantial contribution but will also leave behind a framework for the planning and conduct of IVC over the next five years. In this way, the Consortium can continue its work on sustainable inland valley development leading to improved food security and poverty alleviation.

I wish you a successful and fruitful meeting.

1 - Presentation of the 2004 results achieved in the NCU's

In 2004, eight research projects were supported by IVC. Each NCU presented the results of their particular project; many observations and comments were made by the participants.

UNC Bénin	Gestion des risques par la lutte anti-erosive et le paillage dans les bas-fonds de Gankpétin et de Gomé
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- **Constraints** related to water management in the inland valleys of Gankpétin and Gomé are: inundation, erosion, and rapid loss of residual soil moisture.
- Solutions proposed are: constructions in the gullies to slow down water flow, vegetative barriers, stone barriers and mulching.
- **Observations** to assess efficiency of these solutions were: measuring regressive soil loss (erosion sticks), measuring soil run-off (sediment traps), crop and soil sampling, dynamics of land occupation.
- **Results** of the study were: little soil erosion and soil run-off due to the presence of a vegetative soil cover, erosion is not always a very evident and visible problem for farmers; mulching had an significant positive effect on production of okra ('lady finger') and is therefore considered a vital component in risk management of the inland valleys; there is an exchange of plots between different land users; a large variation in rainfall and water availability exist between the two sites, despite their proximity (22 km).
- **Recommendations** are to use an integrated management of the inland valleys.
- **Discussion** with workshop participants focused on soil types and the problem of declining soil fertility with continued vegetable growing with little external inputs; quality, mode of application and profitability of mulch; existence of problems with pests in the inland valleys.

UNC Bénin	Test de performance de nouveaux dispositifs d'étuvage de riz dans les zones de Glazoué, de Dassa et de Ouessè
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- **Constraints:** rice production in Benin cannot meet rice demand; locally produced rice in Benin cannot compete with imported rice, due to differences in quality.
- **Objective** of this study was to compare the qualitative and quantitative performance of a new par-boiling method for rice with the locally practiced method on a socio-economic level
- **Material:** The new par-boiling method consist of a double-pot system, where water is boiled in the lower pot and rice is steamed in the perforated upper-pot that is superimposed in the water-boiling one. In the local practice, rice is boiled in water.
- **Methodologies:** data on rice grain quality and energy requirements are combined with socio-economic data, obtained through interviews in 4 villages (125 participants, all women).
- **Results:** quality and quantity of par-boiled rice improved with the new method, a lower percentage of broken kernels is observed, the new method requires significant less time and the revenues by the new method are superior compared to the local method
- **Discussion** focused on the transfer and dissemination of this technology. Workshop participants were particularly concerned whether farmers (women) outside the test villages could also have access to this new technology, technologies should not be reserved to trainers alone; dissemination and adoption of a new technologies takes time; an improvement concerning the closure of the steaming pot was suggested (clamps instead of stones) to prevent dirt from falling into the rice; question was raised whether framers should better focus on production or post harvest issues and whether or not producers are the same as post harvest processors; production and post-harvest are closely linked, high quality rice will generate a good price on the market and form an incentive for rice production.

UNC Bénin	Rentabilité financière des technologies d'intensification de la production rizicole dans les bas-fonds du CBF (Gankpétin et de Gomé) au Bénin
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- **Objective** of this study was to evaluate the technical and economical performance of technologies compared to traditional farmer practice in rice cropping systems
- **Technologies** introduced were: development (water management structures) of the inland valleys, improved varieties, chemical weed control, and roller to prepare sowing bed.
- **Constraints** were: quick drying-out of the soils, lack of adaptation of cultivated varieties, quick invasion of weeds, high sowing densities

- **Methodologies** comprised a combination of farmer interviews (in Gankpétin and Gomé) and yield assessments on four technology packages constituting any combination of on inland valley type (developed vs. non-developed) and rice varieties (improved: higher yielding vs. local)
- **Results** based on an economical assessment of the various technology packages were: highest net margin and financial productivity of the combination of improved varieties in developed inland valleys and a clear economic advantage of the use of the roller to prepare sowing bed.
- **Recommendations** from this study were: promotion of micro-developments of inland valleys and extension of technology packages, intensification of the training of farmers.
- **Conclusion** of this study was that technologies tested result in a yield increase, decrease of labour demand and consequently an increase of economic benefits
- **Discussion** with workshop participants focused on selection of farmers for this survey; gender issues in adaptation of technologies; impact of technologies on the house-hold level; labour saving aspects of technologies in relation to women; inclusion of costs of water management in the calculation of the economic balance; the difficulty in computing the labour costs (family vs. contract labour); the constraint of large financial investments and the risks involved on farmer level.

UNC Guinée	Capitalisation et diffusion de l'information sur les bas-fonds en Guinée à travers une cellule de documentation spécialisée – Mise en place d'une base de données
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- **Objective:** Data collection and training on data base handling; to make an accessible database on essential and available inland valley agro-ecosystems issues.
- **Methodology:** To design an interview scheme, an information system and a meta-data set
- **Results:** A database on inland valleys of Guinea.
- **Recommendations:** The data base needs regular updates from ongoing activities in the inland valleys in Guinea; the data base needs geo-references and incorporate GIS information; accessibility and dissemination needs to be improved (through CD-ROM's, internet etc.); methodological support to extrapolate to the WAIVIS information system is necessary.

UNC Togo	Gestion intégrée et participative du bas-fond d'Adéta
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- **Objective:** Yield and weed pressure assessment following two different sowing modes (direct and transplanting) in developed and non-developed (water management structures) inland valleys; determination of the economic profitability of these innovations.
- **Methodology:** on-farm experiments are conducted in two years in the key-site peri-urban inland valleys of Adéta, Togo; the experiment was carried out with rice variety TGR203 (WITA 4) and comprised 4 treatments (all four combinations of direct sowing/ transplanting and developed/non-developed inland valleys) and 5 replicates; the group of farmers consisted of four men and six women.
- **Observations:** agronomic data (yield, weed biomass dry weight) and economic data through interviews
- **Results:** adoption of technologies: 80% of the farmers was in favour of transplanting, 20% for direct sowing; direct sowing was preferred when labour was scarce and when rainfall was uncertain
- **Conclusions:** 2004 data confirm results from 2002 that stressed the importance of water control in rice production in the inland valleys; whatever the sowing/planting mode is, in developed inland valleys the rice cultivation will be economically viable
- **Recommendation:** Results from Adéta need to be extrapolated and tested in other sites in the same agro-ecological zone.

UNC Togo	Appui à la mise en valeur après aménagement – Projet pilote d'aménagement et de mise en valeur de bas-fond de Nogyiog au Nord-Togo (ITRA-IFDC-CBF-RAFIA)
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- **Characterization:** Typically the inland valleys of Northern Togo are exploited by women who cultivate mainly rice.
- **Constraints:** A lack of water control, poor soil fertility and a lack of support of farmers.
- **Objectives:** To alleviate the constraints in the inland valleys by restoring soil fertility (to determine the economic application dose) , variety selection (analyse of selection criteria and facilitating a rapid transfer of new varieties), the organisation and training of the women, creating access to credit for inputs.
- **Methodology:** 4 fertilizer treatments followed by yield assessment and economic evaluation; 16 varieties were offered from which farmers could select)

- **Results:** These experiments showed that it is possible to increase yields with 50-100% depending on the proper application of all technologies; 4 new and 5 local varieties have been tested; selection criteria were: plant size, tiller number, yield, kernel size and colour; new varieties were selected more frequently than local varieties; the improved variety TGR 203 was most appreciated by the farmers; yield was the most decisive selection criterion
- **Recommendations:** Seed from selected varieties should be multiplied and disseminated over a wide number of farmers; training on seed multiplication should be considered for personnel from the NGO involved; collaboration between various structures (NAR's, IAR's and NGO's) proved to be fruitful and deserves follow-up.
- **Conclusion:** Soils remain to be poor and water control remains to be a problem in the inland valleys of Northern Togo; for PVS the principal selection criterion is yield.
- **Discussion:** Workshop participants raised the following points of discussion (concerning both presentations from Togo): the need to up-scale the results; the usefulness of the roller to prepare seedbed from Benin; definition of 'development' ('development' is used for 'retention of water'); can farmer afford themselves to buy fertilizer; selection criteria should also comprise taste, plant size etc. instead of only yield; partnership is impressive and needs follow-up; the number of farmers involved is rather small; selection of farmers in the evaluation (by what selection criteria?); issues such as rural credit system and land tenure are discussed in relation to female farmers.

UNC Mali	Effet des cultures de diversification sur la fertilisation, le rendement et les nuisibles en riziculture de bas-fond en zone Mali-Sud - Cas de la zone peri-urbaine de Sikasso
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- **Objectives:** To assess the effect of crop diversification and fertilizer applications on rice yield and soil fertility; to determine the interaction between rice and other crops (potato, beans and groundnut) taking into account soil fertility and pests.
- **Methodology:** Potato is main crop in this study; on-farm; crop (tillers, panicles, height, yield, phytosanitary problems) and soil data; 15 farmers; rainy season and dry season of 2004; six fertilizer treatments (control, cotton complex and urea) with additional organic fertilizer
- **Results:** Fertilizer use has a significant effect on crop performance and yield.
- **Conclusion:** Crop diversification in the dry season affects rice yield; no visible effect of dry season crop choice on insect pests.
- **Recommendations:** A need to study the profitability of the potato-rice system; presence of pests; extrapolation to other dry season crops such as beans and groundnut
- **Discussion:** Experimentation was only focussed on potato and rice, since this is a very common cropping system in the region of Sikasso; main pest in the region is stem borer, no incidence of 'white fly'.

UNC Burkina	Amélioration des performances des systèmes traditionnels de culture des bas-fonds du sud-ouest du Burkina Faso – Cas du bas-fond de Kampti (Province du Poni)
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- **Objectives:** To analyse the cropping systems applied in the inland valleys in the region; to come up with proposals for improvement of diversification and yield taking into account the socio-economic conditions of the land users; to supply farmers with new technologies.
- **Results:** Four activities have been realized: a physical description of the inland valleys; a participative diagnosis of constraints and technologies to promote, proven significance of the inland valleys for food security of the region, implication of certain development actors; three geomorphologic units are identified and characterized: the upland, the slope and the valley bottom; four main constraints are identified for rainfed crops: inundation, difficult access to improved varieties, damage to crops by cattle, degradation of soil fertility; main constraints to vegetable growing are: lack of water, damage of crops by cattle, insect incidence, difficult access to inputs
- **Conclusion:** The principal inland valley crop in Burkina Faso is maize, followed by rice, sweet potato and sorghum. These crops occupy more than 80% of the surface of the inland valleys. Crops are grown for self-sufficiency, while rice may be sold if the yield allows it. Inland valleys play an important role in food security in the region.
- **Discussion:** The issue of land tenure in the inland valleys of Kampti were discussed. Land is used by different groups, the pressure on the land is high, especially with the Ivorian crisis and subsequent migration, which evokes conflicts. The potential importance of rice is mentioned, favoured by the proximity of cities. The balance between wild life and agriculture needs to be maintained and well monitored. VINVAL is already focussing in this issue. We should have more of these projects in phase III.

2 - Activities of the Regional Coordinating Unit (RCU)

- **Research themes of the CBF:**
 - (Theme 1) Characterisation of dynamics
 - (Theme 2) Implication and evaluation of technologies
 - (Theme 3) Socio-economic aspects
 - (Theme 4) Diffusion processes

- **Results of phase II:**
 - (Theme 1) consortium for spatial information, training on meta-data, characterization of the “Lowlands” project sites, DIARPA, iron toxicity, data base WAIVIS, national data bases on inland valleys, collaboration with VISION project;
 - (Theme 2) diversification of products (vegetable, integrating livestock-crops, rice-fish-culture), post-harvest (par-boiler), water control structures, rice culture (varieties, transplanting techniques, seedbed roller);
 - (theme 3) social studies, land tenure studies;
 - (theme 4) PLAR-method, organisation of 59 workshops and meetings, training of farmers (213 of which 142 women), training of trainers, editing of manuals.

- **External review** outcomes: Weak points of the IVC as determined by the CCER are: difficult functioning, lack of visibility and readability, low participation by other international institutes other than WARDA, lack of training, some themes have received too little attention (socio –economics, water management), benchmarks areas are not used. Strong points of the IVC as determined by the CCER are: comparative advantage of the IVC, knowledge on the inland valleys, capacity of expertise in 7-11 countries, system wide and eco-regional, acting as primer for ambitious projects such as VINVAL, PAFR (Burkina), BAD (Ghana).

- **Recommendations for phase III:**
 - Participative preparation of Phase III
 - Promotion and implication of results from Phase II
 - More multi-year, cross-border projects
 - Scientific supervision, monitoring and evaluation
 - Multi-donor financed research
 - Short term training on water management
 - To capitalize (efforts by UNC) to diffuse attractive products
 - To organize a major symposium on inland valleys in 2007
 - Implication in national politics and projects (broaden the composition of the UNC’s)

- **Discussion:** In the discussion it was stressed that the participation of scientists in formulation of phase III is very important. Projects need to be multi—year and multi-location (cross-border). There is a need for an impact evaluation of the IVC to create more visibility Question remains how to do such an evaluation. Training on water management is also one of the priorities.

3 – Others presentations

a) The new CGIAR system priority settings

L'Assistant Directeur Générale - Recherche et Développement de l'ADRAO a présenté les axes prioritaires du CGIAR et les positions de l'ADRAO et de l'IVC par rapport à ces priorités. Il a exposé le processus et les critères employés pour la définition des dites priorités. Il s'agit essentiellement de la prise en compte des paramètres de réduction de la pauvreté garantissant la sécurité alimentaire tout en préservant la biodiversité. Cinq priorités ont été définies par le CGIAR. Les activités de l'IVC intègrent la priorité N°4 relative à la gestion de l'eau, des sols et des ressources forestières pour réduire la pauvreté.

Il a recommandé l'utilisation de ces axes prioritaires dans les futures propositions de projets.

Priority Area 1: Sustaining biodiversity for current and future generations

- 1a Conservation and characterization of staple crops
- 1b Conservation and characterization of neglected and under-utilized genetic resources having high income potential
- 1c Conservation of indigenous livestock and their wild relatives
- 1d Conservation of aquatic animal genetic resources

Priority Area 2: Producing more at lower cost through genetic improvements

- 2a Maintaining and enhancing yields and yield potential of food staples
- 2b Tolerance to selected abiotic stresses
- 2c Enhancing nutritional quality and safety
- 2d Genetic enhancement of selected high-value species

Priority Area 3: Creating wealth among the rural poor through high-value commodities and products

- 3a Productivity increases in fruits and vegetables
- 3b Income increases from livestock in low- and high potential areas
- 3c Enhancing income through increased productivity of fisheries and aquaculture
- 3d Sustaining and realizing the value and benefits of forest and trees
- 3e Post harvest value and employment creation

Priority Area 4: Sustainable and equitable management and intensification of water and land resources

- 4a Integrated land, water and forest resource management at landscape level
- 4b Sustaining and managing aquatic ecosystems for food and livelihoods
- 4c Improving water productivity at the farm and field level
- 4d Agro-ecological intensification in low-potential areas
- 4e Agro-ecological intensification in high-potential areas
- 4f Policies and institutions for improved governance of environmental resources

Priority Area 5: Improving policies and facilitating institutional innovation and capacity to support sustainable reduction of poverty and hunger

- 5a Science and technology policies and institutions
- 5b International trade and domestic markets
- 5c Rural institutions

b) Water saving in rice production system

La riziculture aérobie : Cet aspect a été présenté par Pieter Windmeijer. Il s'agit de travaux visant l'utilisation rationnelle de l'eau à la demande pour produire du riz et gérer au mieux les ressources en eau. Les casiers de riz sont immergés en fonction de la demande de la culture. Cela suppose une maîtrise totale

de l'eau et le développement de technologies efficaces de lutte contre les mauvaises herbes. Ces travaux réalisés en Asie donnent une autre vision de la production du riz. Il faudrait voir comment cela pourrait être adapté à l'Afrique.

c) Factor affection Lowland development use and productivity

Le projet Lowlands : Il a été présenté par Paul Kiepe. Il s'agit de définir en fonction des gradients pluviométriques de la densité de population et de l'accès au marché, les facteurs influençant la mise en valeur des bas-fonds. Trois pays ont été retenus pour abriter le projet. Il s'agit du Ghana, du Burkina Faso et du Togo. Il est à préciser qu'il ne s'agit pas d'un projet CBF mais sa spécificité fait qu'il implique fortement les membres des UNC. Un atelier méthodologique du projet a été organisé en décembre 2004 à Bamako. Les activités du projet devront démarrer au cours des prochains mois.

d) Natural resources by ITC

La présentation de l'ITC : Le représentant de cette structure a présenté son institution, les principaux résultats obtenus à travers les travaux réalisés dans les différents pays. L'exposant a également exposé les différents outils utilisés par son institution (Télédétection et SIG essentiellement). Il existe également des possibilités de formation. Un MSc sur la gestion des ressources naturelles est organisé par cette institution en partenariat avec l'université de Kumasi au Ghana. Le développement du partenariat avec le CBF pourra être envisagé dans plusieurs domaines.

e) NCU Benin self evaluation

L'UNC Bénin : Cette structure à travers son coordonnateur Vincent Mama a fait le point des activités réalisées par l'UNC et procédé à son évaluation à partir de l'outil SEPO (Succès, Echecs, Potentialités, Obstacles). Il est ressorti de l'exposé que les activités de l'UNC Bénin ont eu un impact positif sur les populations des bas-fonds où elle intervient. Il y a eu les aménagements, le développement et les tests de technologies. Pour ce qui est des échecs, ils sont relatifs à certains travaux non aboutis (DIARPA), à l'impact négatif des aménagements sur la gestion des ressources naturelles (érosion, assèchement des bas-fonds, etc.). Les potentialités sont l'ensemble des ressources humaines dont dispose l'UNC. En ce qui concerne les obstacles, il s'agit essentiellement des moyens matériels et financiers, de l'absence de formation du personnel de l'UNC, etc.

f) Discussions sur les critères de pauvreté

Le Professeur Constantina Safiliou, de l'Université Agricole d'Athènes et consultante de l'ADRAO a fait une intervention pour définir les critères de pauvreté.

Dans son argumentation, elle précise que bien souvent les vulgarisateurs (les chercheurs) travaillent avec une catégorie de paysans afin de garantir le succès de leur intervention. Il est donc recommandé d'éviter l'exclusion de certaines catégories de paysans, particulièrement les plus pauvres et de travailler avec tous les types.

4 – Contributions des UNC et des partenaires pour une phase III

Dans chaque pays membre, les UNC ont eu à faire un travail préparatoire à l'atelier en vue de la préparation de la phase III. Chaque coordinateur a pu présenter les principales orientations souhaitées par les membres de son UNC et les partenaires présents ont exprimés aussi leurs souhaits.

Burkina (2 réunions d'UNC)	Les axes de la phase II n'ont pas tous été épuisés, donc il faut les poursuivre avec de nouvelles propositions Définition de nouveaux axes : <ul style="list-style-type: none"> - impacts environnementaux et sanitaires - impacts des changements climatiques sur les systèmes de culture - gestion des maladies et ravageurs des cultures - diversification des productions - activités pastorales
Guinée (atelier national élargi à d'autres partenaires)	3 axes prioritaires définis : <ul style="list-style-type: none"> - systèmes de culture dans les bas-fonds - mise au point et évaluation des technologies transférées - aspects socio-économiques du bas-fond
Mali (groupe de travail et réunion d'UNC)	L'évaluation des thèmes de la phase II a montré que le thème 2 (technologies notamment sur la gestion des ravageurs, la GIR, le matériel végétal et les systèmes de culture dans les bas-fonds) a été bien traité mais doit être poursuivi pour intégrer les innovations. Les 3 autres thèmes peuvent aussi se poursuivre, en intégrant de nouvelles préoccupations : <ul style="list-style-type: none"> - l'impact des aménagements sur la bio-diversité - l'impact des aménagements et des innovations sur les revenus - l'accès des femmes au crédit - la diffusion d'un catalogue actualisé des technologies éprouvées
Côte d'Ivoire	La phase II a pris en compte les thèmes d'actualité. Il est nécessaire de renforcer l'étude des dynamiques et des facteurs socio-économiques dans le cadre de l'utilisation réelle des bas-fonds. Le développement des technologies doit se poursuivre dans le sens de la diversification des productions
Bénin	Etant donné les difficultés rencontrées durant la phase II, on peut considérer que tous les thèmes n'ont pu être traités entièrement. Il faut donc mettre l'accent sur la poursuite en accentuant : <ul style="list-style-type: none"> - sur les aspects socio-économiques et les études d'impact (économique, social, santé) - sur la gestion des risques (changement climatique) - la transformation et la commercialisation des produits - sur la diffusion de référentiels technico-économiques en fonction des différentes spéculations
Gambie	L'UNC venant de se constituer, il s'agit de faire une caractérisation des bas-fonds et d'adapter les technologies déjà mises au point dans les autres UNC.
WUR (Wageningen)	Les idées principales sont : <ol style="list-style-type: none"> 1) La gestion intégrée du système de production (impact des technologies, post-récolte, organisation des paysans, relations avec les privés, ...) 2) Une approche d'intégration sur les relations entre agriculture et bio-diversité et notamment les conflits qui apparaissent 3) La formation des acteurs (chercheurs, développeurs, ONG, paysans) et une amélioration du transfert des informations et des technologies auprès des utilisateurs
Nigeria	Poursuivre la mise au point de technologies, mesurer l'impact environnemental et proposer une diversification des productions dans les bas-fonds.
Cameroun	Plusieurs entités travaillent sur les bas-fonds (Projet Bas-fonds, ONG, Université de Dschang ???) : l'objectif est de faire travailler ensemble ces entités et de démarrer la phase III du Consortium
CIRAD	Le CBF doit à la fois servir le développement et assurer une production scientifique. Les connaissances acquises dans le cadre de CBF doivent être utilisées pour le développement

Les grandes tendances font ressortir que durant la phase II, tous les thèmes de recherche n'ont pas pu être abordés entièrement dans tous les pays et qu'il faut prévoir une poursuite ou une reconduction dans certains cas, comme en ce qui concerne le transfert de technologies, les problèmes fonciers et la diffusion des acquis.

La présentation des UNC a été suivie d'un **débat général** sur la préparation de cette phase III. A l'issue des discussions, un premier consensus a été dégagé autour des thèmes devant faire l'objet de cette phase :

- **La gestion intégrée des bas-fonds (production agricole)** : Ce thème devra prendre en compte les aspects relatifs aux points suivants : production agricole ; aménagements ; organisation ; formation ; sécurisation foncière ; études d'impact ; activités post-récoltes.
- **Les interactions « Ecologie – Climat – Biodiversité »** : Il s'agit de tout ce qui est relatif aux animaux, végétaux et des études d'impacts.
- **La valorisation des acquis** : il s'agit pour le CBF de valoriser tous les acquis afin de lui permettre d'être plus lisible et plus visible. Ce thème prend en compte : le développement et la valorisation des bases de données, les aspects communication (fiches techniques, média, etc. ...), la diffusion, la régionalisation et les études d'impacts.
- **Le renforcement des capacités** : il s'agit de la prise en compte de toute action permettant à tous les acteurs d'être plus opérationnels (formation, recyclage, appui-conseil etc.).

Après ces discussions, deux groupes de travail ont été constitués pour une étude approfondie des thèmes retenus. En vue de résoudre les problèmes linguistiques, il a été décidé de constituer un groupe anglophone et un groupe francophone ; chaque groupe a réfléchi sur l'ensemble des thèmes.

5 – Visite de terrain sur le périmètre de Odotchere

L'UNC du Bénin a organisé une visite du périmètre d'Odotchéré dans le département des Colline (Dassa-Zoumé).

La rencontre avec les productrices intervenant dans le périmètre a été très riche en discussions et échanges. Elles ont énuméré certains problèmes qu'elles rencontrent sur le terrain et ont aussi à leur tour posé des questions que certains des participants ont répondu.



6 – Réflexions en groupes de travail

Principaux axes de travail du groupe anglophone

Theme 1: Improving livelihood of resource poor farmer by optimizing IV production system

A. : (targeting poor)

- (few countries)
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- B. Adaptation testing technologies
 - Local successes
 - Modern technologies
 - Water use efficiency?
- C. Technology development
- D. Diversification and specialization (crop-livestock, high value products)
- E. Post-harvest technologies & Seed management
- F. Processing - adding value to agricultural products

Poverty targeting and Socio-economic impact (A-F)

Theme 2: Sustaining (agro) biodiversity in inland valleys

- A. Effect of climate change in IV production
 - a. New partners
 - b. Climate data series (regional)
 - c. Change production systems (In areas with clear needs for changes)

Trans-national projects

- B. Inventory of biodiversity (base-line information see also IUCN)
- C. Ecological + production (**economic**) functions + cultural + social
- D. Impact of inland valley development on the existing biodiversity
- E. Balance uses
 - a. Research on sustainable IV management systems
 - b. Conflict management between different user groups
- F. Agro biodiversity maintaining
 - a. Germplasm conservation

Theme 3: Capitalization of results + transfer

(For user's farmers, development agents, scientists, students)

- A. Synthesis
- B. Manuals
- C. Scientific publication
- D. Development of national and regional databases + GIS
- E. Decision Support Systems
- F. Research on transfer methods

(Institutional problems, approaches, funding support level)

- a. Institutional problems
- b. Methods
- c. Across Country PLAR Evaluation
- d. Spatial distribution of extension services and methods for transfer

Theme 4: Capacity building and institutional changes

(All stakeholders)

- A. NCU capacity/networking
- B. Scientists involved in IVC research (gender and poverty, interdisciplinary, participatory)
- C. Extension services, NGOs, private sectors
- D. Farmers and farmer organizations empowerment
- E. Enhancing and involvement of policy makers

General remarks:

How to take into account Resource poor farmers (RPF)

- The use of the term resource poor farmers should be avoided. Instead we should address the needs of all farmers in the Inland Valley systems. This, because poverty is on a sliding scale and exists in all inland valleys production systems
- Instead of RPF, the concept of **rural populations** could be used.
- We can also focus on methodology approaches that include poor.
- From the Phase I, we have also some basic characterization data for farmer groups

Characterization

- Activity A (Characterization): it is good to consider the two options of classical characterization for new countries and the second option to caption the land use dynamics which is not complete during the phase II

Diversification

- Activity D: (Diversification/Specialization-Livestock, high value) it is suggest to consider an important research area for Anacardiaceae (cashew) and insects (fweaver ants) around valleys. There are some interesting results coming from Australia and Asia on these subjects. Dr Paul van Mele had published a manual for farmers in these areas.

Planting of high value trees under crop diversification should be encouraged. This creates suitable environments for the settlement of beneficial insects in the cropping systems. At Odotchere during the field visit, some beneficial ants that are reported to have increased the yield of farmers in Australia over the use of fertilizers were observed.

Post-harvest technologies

- **Activity E** (Post-harvest technologies & Seed management) **Post harvest and processing** are different activities that should be treated separately. However the issue of adding value to product is so important that it should be visible under processing and must include marketing aspects.
Seed management: This issue is important. Inland Valley can be considered as an alternative to provide improved seed as we saw it from the field visit at Odotchere where women farmers are producing vegetable plants in nurseries for selling
- Seed management should be a separate activity that is carried out to avoid varietal mixture since the provision of good seed is critical for Inland valley production systems.
- **Activity F: (Processing - adding value)** This activity includes post harvest technologies like parboiling, cakes, beverages , which add value to Inland Valley productc. Adding value should be consider as an activity a part

Agro-biodiversity conservation

- IVC should take advantage of or make use of institutions that have already gene banks like WARDA for rice, AVRDC for vegetables and IPGRI.

Technology transfer: There is confusion while using this concept of a top-down approach. An alternative would be to use **Participatory approach**

- Technology transfer should focus on attracting the attention of the donor community. The approach should be participatory rather than top-down.
- It is good to consider a **student** within the users group

Institutional changes We should look for the promotion of new platforms for capacity building. In this theme, we should consider improving collaborations between all the stakeholders.

Principaux axes de travail du groupe francophone

1. Optimisation des systèmes de production dans les bas-fonds pour améliorer le bien-être des populations rurales

- Mise au point, adaptation et adoption participatives des technologies
- Étude des dynamiques liées à la mise en valeur (Foncières, Physiques, Sociales, Système de culture).
- Diversification et spécialisation des systèmes avec prise en compte des cultures à haute valeur ajoutée, ainsi qu'à la pisciculture, l'élevage, etc.
- Technologies post-récolte

2. Impacts environnementaux de la mise en valeur des bas-fonds et la conservation de la biodiversité dans les agro-écosystèmes de bas-fonds

- a) Biodiversité naturelle dans les bas-fonds
- b) Impacts des changements climatiques sur les systèmes de production dans les bas-fonds
- c) Les fonctions de la végétation dans les bas-fonds : production, médicinale, écologique, etc.
- d) Impacts de la mise en valeur des bas-fonds sur l'environnement et la santé (importance sur la ressource en eau)
- e) Agro-biodiversité
- f) Autres usages non-agricoles dans les bas-fonds
 - Anthropologie
 - Culture

3. Valorisation et diffusion des acquis

- a) Valorisation des acquis
 - Publication scientifique
 - Fiches techniques
 - Site web
 - Base de données nationales
 - Outils d'analyse
 - Outils d'aide à la décision
 - etc.
- b) Amélioration des méthodes de diffusion
 - APRAGIR
 - etc.
- c) Diffusion et régionalisation des produits (acquis valorisés) en fonction des publics cibles
 - Producteurs
 - Développeurs
 - Chercheurs
 - Décideurs
 - etc.

4. Renforcement des compétences et des partenariats

- a) Amélioration du niveau scientifique et technique des chercheurs
- b) Formation des agents de développement
- c) Formation des producteurs et appui aux organisations paysannes
- d) Promotion des plate-formes d'échanges entre les acteurs
 - Opérateurs économiques
 - Décideurs
 - ONG, développeurs
 - Producteurs
 - Chercheurs
 - Etc.

Commentaires généraux

- *Il faut garder en tête que les quatre axes sont inter-reliés. C'est-à-dire que les résultats d'un axe peuvent être utilisés dans un autre axe*
- *Deux thèmes extrêmement importants méritent d'être cités; ils sont transversaux à tous les axes :*
 - *les études d'impact et autres études socio-économiques*
 - *la prise en compte de l'aspect genre*
- *Bien que le thème « caractérisation des bas-fonds » n'apparaisse pas dans les axes de recherche retenus, il est implicitement acquis que les nouveaux membres doivent effectuer la caractérisation de leurs bas-fonds avant d'entreprendre toutes autres activités*

7 – Discussions générales

Le fonctionnement du consortium est actuellement assuré par la Hollande et la France pour cette année, mais il n'y a pas de garantie pour le futur.

Le Coordonnateur régional devra recenser les opportunités et les transmettre aux membres du CBF, avec nécessité pour tous de faire du lobbying.

Points abordés :

1. En 1997 à Yamoussoukro un règlement intérieur du CBF avait été adopté. A circuler aux nouveaux membres.
2. Actuellement il y a 11 membres en dehors du Sénégal qui veut devenir Pays membre.
3. Président (coordonnateur UNC), UCR, Comité de Gestion (4 UNC (2 anglophones et 2 francophones), 4 instituts internationaux, 2 membres statutaires (ADRAO, CORAF).
4. Faiblesse des montants alloués aux UNC soulignés par le Burkina Faso. Subvention de 7000 \$ été alloué par l'UNC.
5. Retard dans le décaissement des fonds. Des dispositions devront se prendre pour éviter le retard dans l'exécution des projets.
6. Mise au point et diffusion d'outils d'aide à la décision
7. Problème de bulletin de liaison à considérer.
8. Budget 2005 n' est pas communiqué. Il n'existe pas encore une indication sur le budget de la part de l'ADRAO.
9. Mise en place d'un comité scientifique est une recommandation de la revue d'évaluation. Pour éviter que les membres ne soient juges et parties. Cette proposition avait été faite par revue précédente, mais jamais mise en place.
10. Le CBF a une certaine autonomie. Il y a complémentarité entre le CBF et l'ADRAO.
11. Manifestation pour marquer les dix ans du consortium. Diffuser certains CD (DIARPA, Base de données)
12. Différentes propositions ont été faites ;
Pour certains, il faut que les deux évènements soient combinés avec le symposium de 2007.
pour d'autres, des manifestations devront être nationales.
D'autres enfin préconisent l'organisation de manifestations régionales pour 2005.

Au total, il ressort des discussions que tous les participants partagent bien l'idée de marquer les 10 années d'existence du CBF. Compte tenu du caractère régional qu'il faut imprimer à cette manifestation, une bonne préparation s'avère nécessaire. Les réflexions sur cette question doivent se poursuivre.

8- Conclusion de l'atelier

The objective of the meeting was to take a critical look at the previous year's work and discuss implications of the CCER, for the strategic plan for Phase III of the Consortium. Thirty (30) participants were present especially the West African members of the consortium and representations from seven international partner organizations including universities. The Director General of WARDA Dr Kanayo Nwanze opened the workshop by stating that the consortium should take a closer look at the recommendations of the CCER and also be professional in their deliberations. The entry of Gambia and the proposal to include Senegal in the consortium were announced.

Ahead of presentations by members of the consortium, Dr S.O. Keya (ADG, R & D) presented an outlook of the current research priorities of the CGIAR as accepted by the Science Council of the CG. He encouraged the consortium to focus on these themes as they planned their work for the Phase III. Subsequently, the NCU's of Benin, Togo, Mali, Guinea, and Burkina Faso made presentations on their funded activities in 2004. Research themes were based on dynamics of characterization, implication and evaluation of technologies, socio-economics and diffusion process. A field trip was also undertaken to Odo – Otchere (Zou region of Benin) where participants were familiarized with the operations of a siphon irrigation system in an inland valley, operated by about 150 vegetable farmers.

Based on participative group discussions a proposal has been drawn for the third phase, which builds on gaps of Phases II and I. Focus is to be put on characterization for the new IVC members, and dynamics of the changes in the 'old' countries targeting the poor. Gender and socio economic issues will be covered throughout all the studies to be conducted. Labor saving technologies for water management, and evaluation of locally available successful technologies have been proposed as active areas of intervention. Specialization and diversification especially evaluation of the influence of the presence of livestock in the valleys have been proposed. Sociological impact assessment and potential conflict between different user-groups will be assessed throughout the different projects.

Proposals have also been made to take care of long term, trans-border studies. Climate data series for the region, evaluation of climate change on inland valley productivity has also been proposed for studies. The impact on inland valley productivity on ecological, production (economic) biodiversity and the maintenance of agro-biodiversity have all being kept in focus in the next phase of the consortium work.

It has also been proposed to work on data collection to enhance the development of decision-making tools, the development of national and regional database, evaluation of the spatial distribution of extension services and methods of technology transfer. Thus, publications of extension manuals and scientific publications will be rigorously pursued. The third phase of IVC work also focuses on skills transfer, and the improvement of the competence of the many actors (extension, NGOs) in the inland valleys. It has also been proposed to set up platforms in the other countries for the promotion of IVC activities.



ATELIER ANNUEL DU CBF
IVC ANNUAL WORKSHOP
Cotonou, Bénin 4 – 8 avril 2005



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