DRYLAND CEREALS Management Response to
Recommendations of the CRP Commissioned External Evaluation (CCEE)

Background *(in part, extract from the CCEE Report)*

The external evaluation of the **CGIAR Research Programme on Dryland Cereals** is one of five CRP commissioned evaluations conducted under the guidance of the Independent Evaluation Arrangement (IEA) and primarily funded by the CRP. The implementation of the CCEE was delayed due to the fact that two rounds of notifications were required before the final selection of the evaluation team, based on IEA input and approval. It is intended to provide accountability for the progress of the CRP and to generate lessons and recommendations to enhance management decision making and program improvement, and to contribute to the design for the second phase of the program. The main stakeholders and audiences of the evaluation are the management and governing bodies of Dryland Cereals, the CGIAR Fund Council and Consortium Board, the Independent Evaluation Arrangement, the Lead and Partner Centers and Dryland Cereals' research and development partners.

The evaluation is primarily formative, but also takes into account evidence of the results of research prior to the establishment of Dryland Cereals. Five broad evaluation criteria are used - **relevance, quality of science, effectiveness, efficiency,** and **impact and sustainability**. Three cross-cutting issues, gender, capacity strengthening and partnerships are considered across the Dryland Cereals flagships. A framework was developed to guide the evaluation, with detailed questions, data sources and methods for each criterion. The main tools used were review of Dryland Cereals documentation, interviews and meetings with flagship and crop cluster leaders, research teams and partners, on-line surveys of scientists and partners and discussions with development partners, private sector actors and farmers. The evaluation covers the four crops of the Dryland Cereals across different countries and regions. Countries selected for field visits covered the range of crop research and research leadership. For barley, these were India, Morocco, and Ethiopia. ICRISAT's East and Southern Africa Regional center in Nairobi was chosen as a convening point for researchers from Uganda and Tanzania while researchers from Mali and Niger were met in Senegal.

Independent Quality Validation of the Evaluation:

The quality of the final evaluation report was assessed and validated by an external and independent senior evaluation expert who is a member of the quality validation review panel created by IEA. The assessment reported that the final evaluation report is consistent with CGIAR standards, more comprehensive than the previous draft, provides adequate substantiation for its statements and conclusions, and provides considerable evidence-based information, ideas and recommendations worthy of consideration. The Quality Validation report also stated that areas of improvement noted in the assessment were primarily a consequence of the limited time available for the evaluation, and will be addressed in subsequent evaluations of the program in its next phase. Since the receipt of this report, the second-phase proposal was developed as a program with a strong systems and market focus, combining the current Dryland Cereals and Grain Legumes programs.

The CRP considers almost all of the 15 recommendations as acceptable and necessary, and plans to address these primarily during work planning and implementation of the second phase of the program,

Grain Legumes and Dryland Cereals (GLDC), pending its approval. Responses to the recommendations and planned actions and responsibilities are presented in the table below. Two recommendations cannot be fully accepted, namely, 12 – gender issues in the workplace (partially), and 15 – impact and sustainability, mostly as these are not within the immediate responsibility of the CRP. These are also noted in the table below.

Management Response:

Responses are presented in the table below against each of the fifteen CCEE recommendations, and action items are identified alongside. The Management team and the Steering Committee of the CRP Dryland Cereals find that all recommendations of the CCEE are reasonable. However, without the commensurate budget and authority to direct both funds and effort to address the issues identified and the suggested recommendations, it is difficult to follow through with the recommendations. The over-riding challenge for the CRP has always been budget, and its successive reductions. Despite continuing reductions in W1-W2 budgets, the CRP has been active in seeking and securing bilateral funding, including the second phase of the HOPE project (Harnessing Opportunities for Productivity Enhancements in sorghum and millets) supported by the Bill & Melinda Gates Foundation. Within the available budgets, the CRP was able to launch the Dryland Cereals Scholarship Program in late 2014, jointly administered with APAARI, RUFORUM and WACCI. The program, intended to contribute to capacity building with a focus on the target crops in Asia Pacific, East and Southern Africa, and West and Central Africa, was operational in 2015, and had to be pulled back in 2016 due to successive reductions in budgets. It is hoped that the program will be revived in the second phase program, Grain Legumes and Dryland Cereals (GLDC), which incorporates the current CRP Dryland Cereals.

CCEE Recommendations for Dryland Cereals, CRP Response to the Recommendation, and Proposed Action and Responsibilities

No.	Recommendation	Response to Recommendation	Proposed Action & Responsibilities
1.	**RELEVANCE: In view of disparities in regional research capacity, Dryland Cereals' relevance to Africa could be boosted by reviewing priority setting and actual resource allocation for** regional research activity clusters and flagships. It is suggested that this review be conducted by Dryland Cereals management and flagship leaders with advice from the steering committee. It could consider increasing support for development of facilities and staff in areas which have the potential to deliver benefits to large numbers of poor farmers in the driest areas, for example, the pearl millet and sorghum work in West Africa.	The CRP recognizes that human and infrastructure resources available for sorghum and millets research in Africa is not on par with that in India. Some of these disparities are in the process of being addressed by the Lead Center, ICRISAT. It is to be noted, however, that CRP budget allocated to operations in West Africa as per the program's annual POWB is more than that to India. Research capacities for barley within the program are stronger in North Africa than in other target countries, especially as Morocco is the research hub for ICARDA (which includes barley in its research mandate). It is also of note that the expansion of barley into sub-Saharan Africa is still in its infancy with a current focus on Ethiopia. It is anticipated that the barley sector will expand significantly as dietary preferences change (India and SSA) and the impacts of climate change begin to take effect where these crops are seen as climate-resilient components of a farming system.	A priority setting exercise for both Dryland Cereals and Grain Legumes has been initiated in consultation with Dr Thomas S Walker, and this is intended to continue through 2016 and into 2017. This analysis will also address the feasibility of success and the numbers of people affected. On these criteria, West Africa would likely rate lower than India, despite the obviously higher needs in research and infrastructure in Africa. As such, success in these countries requires longer and durable efforts and sustained budget. Obvious disparities between regional human-resource capacities and balancing these with prioritized needs can only be addressed by the associated CGIAR Center(s). Beyond currently secured bilateral funds through phase II of the HOPE project supported by BMGF, active resource mobilization through W3 and bilateral funds will be undertaken in Phase II to address the critical research and development needs in Africa, especially in West and Central Africa (WCA). This is where the importance of sorghum and pearl millet is most pronounced as staple crops critical to food and nutrition security of resource-poor subsistence farming communities, and where they have the highest share of global area with continuing increase in area. Attempts will be made to secure W3 funds that will support staff salaries such that breeding and agronomy expertise in WCA can be

			grown and strengthened to meet the existing needs such that sustainable R4D can be ensured. Expanded training and staff mentoring and reduction of infrastructure disparities will be considered through capacity building efforts and the revival of the Dryland Cereals Scholarship Program (as it fits into the Phase II CRP), subject to adequate W1-W2 funding. Finally, within the Phase II CRP proposal, there is an explicit focus on country level strategies to guide the prioritization process with respect to crops.
2.	**RELEVANCE: In planning research to be conducted under the flagships, it is recommended that the CRP management and flagship leaders consolidate evidence linking the level of technology to be developed and promoted, to the resource level of target communities**. This might include: • Generating further information on the performance of hybrids (costs, benefits and risks) for African smallholders across different resource endowments in order to develop a rationale for the proportion of resources devoted to hybrid technology development for Africa and more precise targeting. • Developing complementary strategies which match technologies to producer and consumer requirements and resource levels e.g. multiple uses for food and livestock feed or varieties for a specific market requirement; suitability of conservation farming for areas with different human and natural resource endowments.	This is an important recommendation. To a significant extent the program does balance technology generation with the resource level and need of target communities. This is driven by consistent awareness of the research teams on the ground in each region of the divergent demand and needs of target communities in these regions. Examples are (1) the continuing emphasis on breeding of both open-pollinated varieties and hybrids of DC crops in ESA and WCA, where both are in demand; and the focus on hybrid pearl millet in India, (2) continuing efforts on fertilizer application through micro-dosing in ESA and WCA, (3) breeding for dual-purpose, as well as separate food, feed and fodder varieties of barley, pearl millet and sorghum as per the needs of the different target communities; this includes collaborative efforts with the Phase I CRP, Livestock & Fish.	This will be undertaken as part of the prioritization exercise following the RTB model, in consultation with Dr Thomas Walker. This prioritization effort that was initiated in 2016 by the CRP leadership will continue into 2017 as part of the second phase program, pending approval for the second phase. The planned work in 2016 will have the oversight of the current CRP management while those parts of it planned for 2017 will be managed by the Phase II CRP management.
3.	**QUALITY OF SCIENCE: The application of modern breeding methods, including molecular techniques, has untapped potential**. Modernization is needed in terms	The CRP recognizes the critical nature of this recommendation. Capacity needs to be developed for the identification of molecular	Work planning and operations being primarily managed by Center management of the participating Centers, this is an area

	of data collection and sharing, storage and accessibility, using computerized field-books and electronic data capture.	markers closely associated to critical traits, and for the development and deployment of analysis data in a timely manner and to a high standard. Collaborations with the proposed Genetic Gain platform will help support this. Electronic data capture and storage has been initiated by the participating Centers. Rapid adoption needs to be facilitated, and it should be accompanied by statistical design and analysis of experiments.	that can be given prime attention by the Centers early during implementation of the Phase II, pending approval. This has been articulated in FP4 and FP5 of the GLDC CRP proposal. The limited W1&W2 funding for Flagships 4 and 5 of GLDC will be targeted towards embedding these new and innovated molecular techniques within the breeding programs ensuring that the program remains relevant and effective in the development of new germplasm.
4.	**QUALITY OF SCIENCE: Further effort in regional collaboration, exchange and data sharing** is recommended in order to leverage research outcomes within national agricultural research systems, particularly on hybrid sorghum and pearl millet, encouraging private sector collaboration where possible. Increased researcher exchange with partner organizations, including universities and better cross-regional collaboration would help to improve the quality of science and encourage production of publications, (including social science and crop management publications) particularly from underrepresented regions.	The CRP accepts this recommendation. Engagement across Flagships, regions and with partners has so far been limited to one large meeting per year until 2015. Information exchange has been facilitated through the CRP website that has just been re-vamped, although data sharing through a central repository is pending. Collaboration with private sector is very active through the HPRC for sorghum and pearl millet, and with malting and DH research in barley. Researcher exchange between partner organizations including ARIs exists, primarily through short-term visits supported by USAID Linkage Grants.	At least one annual meeting that brings together PIs for planning and review, along with monthly virtual meetings for Flagship Leaders will help increase regional collaboration and exchange. This can be implemented during the second phase of the program. To the extent possible, the annual meeting will be held back-to-back with other major convenings for cost-saving. In addition, the MEL database that is being developed will facilitate wider exchange of work plans and reports, while the renewed website will serve to disseminate current information widely. Subject to adequate budgets, an enhanced researcher exchange program can be developed and implemented.
5.	**QUALITY OF SCIENCE: Strengthening of disciplinary integration of CRP research activities** could add greater value to the research and its products and make the most of potential synergies. Closer integration of social science and policy research and agronomic skills in all regional teams would better direct efforts to the needs of dryland farmers and diverse markets.	This has been a challenge in the current phase, primarily due to limitation in on-site capabilities across all these research domains in all locations. When present, they are not always aligned to the CRP, mostly as a consequence of limited W1-2 budgets in the CRP, and time commitment of researchers to	Action items listed above under Recommendation 4 will help address interdisciplinary integration. Joint planning at the CRP level and at the Center level will be focused on and align with national priorities for the 14 priority countries with additional measure to

		specific bilaterally supported projects.	realize integration and relevance of CRP outputs as articulated in recommendation 6. Incentives relating to funding and annual performance goals will be used as means to foster integration. W1-W2 budgets within the new GLDC CRP will be explicitly be set aside to encourage integration. This will be through continuation of the current Competitive Grants program, as 'Innovation Funds' with one of the criteria being the involvement of multi-disciplinary teams. The CRP will also work on improving the publication rate and quality by providing the required support through collaborative project implementation, analysis and publishing, thus enhancing the scientific reputation of all involved.
6.	**EFFECTIVENESS: Effective implementation of the delivery pathway would be enhanced by a greater emphasis on country-level engagement in planning and implementation of research** consistent with national policies, and in innovation and adoption, involving scientists, research and development partners, agricultural service providers, farmer organizations and private sector actors to produce integrated plans across all flagships.	The CRP agrees with this recommendation. Dryland Cereals has participated in the CRP-level Site Integration consultations in Nigeria, Mali, Ethiopia, India and Tanzania among other target countries. The Lead Center has developed country strategies during 2015 that are based on country priorities.	Country-level planning and implementation using both the CRP-level Site Integration and Country Strategies that include all participating CGIAR Centers will be incorporated into the Second Phase proposal.
7.	**EFFECTIVENESS: Greater emphasis on scaling up and scaling out research results to policy makers and to a broader target group of outreach/spillover countries** (beyond existing focal countries) would extend the results of Dryland Cereals research. The evaluation team suggests that**:** • Dryland Cereals management and flagship leaders develop **a clear strategy for engagement with other countries** through relevant partner organizations	The CRP agrees with this recommendation.	Currently, country strategies have been developed at the level of the Lead Center for Ethiopia, India, Kenya, Malawi, Mali, Niger and Nigeria; others are now under development and will include ICARDA and barley R4D (as well as the other Centers and crops of the Phase II CRP GLDC). These efforts will be initiated during the first year of the second phase itself, and revised as required to respond to farmer-

	• Greater **efforts in information sharing, interaction and influence at the policy level** would help to create conducive conditions for dryland cereals, for example, on seed policy and incentives for seed companies, on expanded farmer seed production and semi-formal seed systems such as Quality Declared Seed.		and market-preferences and national priorities. They will be extended initially to the other primary target countries of the second phase program, and to spill-over countries. The country strategies will take into account policy level interventions, including an assessment of existing seed policies, analysis of existing seed system interventions, and operationalization of best practices for such interventions.
8.	**EFFICIENCY: A clear definition of the roles and responsibilities** of the CRP Director vis a vis program managers in the Lead and partner Centers would help to improve efficiency and effectiveness. An important element to consider is the empowerment of the CRP Director with an increased role in the management of the planning, delivery and quality of CRP outputs and outcomes. Duplication of effort could be avoided by streamlining and standardizing reporting formats.	The CRP agrees that this is an important pre-requisite for its success, and should support active engagement of the CRP Director in planning, implementation and reviewing of program activities in the participating Centers in close collaboration with Center Leadership. The Lead Center has recently undergone a restructuring which has removed the existing ambiguities in the Dryland Cereals leadership and the Lead Center Leadership. Standardized reporting to prevent multiple reporting and consequent inefficiencies is also an accepted recommendation for the CRP.	The recent restructuring of the Lead Center has already addressed the first part of the recommendation. Active engagement of the CRP Director in planning, implementation and reviewing of CRP activities in the Lead and Participating Centers will be ensured, and is planned to be in place for the Phase II CRP from its very start. The Phase II program will also place responsibilities of planning and reviewing of bilateral projects with the Flagship Leaders thus empowering them to make decisions on what is in or out of the CRP, with the endorsement of the CRP Director and the Steering Committee. The Monitoring, Evaluation and Learning Platform that is currently in the process of development will bring efficiencies to reporting and remove the need for duplicate or multiple reporting.

9.	**EFFICIENCY: The CRP is strongly recommended to develop its M&E system.** Elements of this include; • **The development of an overall M&E framework** within which existing data can be synthesized to guide country strategies and gaps identified which require further data collection. • **Conceptualization of CRP program, region and country level theories of change and impact pathways,** as part of the broader framework. Baseline studies by crop and country will draw on these designs, while using common templates for analysis, data consolidation and reporting. • **A monitoring and evaluation data base system** to facilitate the work of the CRP, in tracking delivery and reporting. An M&E specialist will be needed to support CRP management and deal with M&E and impact requirements in CRP phase 2. • **A monitoring Community of Practice** to develop standards, reporting guidelines and quality assurance mechanisms for tracking performance of the CRP across Centers.	The CRP accepts this recommendation.	The CRP is in the process of modeling its Monitoring, Evaluation and Learning System following the Dryland Systems model. Existing socio-economic studies are being synthesized through a consultation with Dr Thomas Walker. A CRP-level Theory of Change and Impact Pathway was developed for the second phase program by the Phase II Leadership in consultation with ActKnowledge. Original plans discussed with ActKnowldedge had included the development of FP level, and country level ToCs with input from Prof Andy Hall (CSIRO), to be undertaken as part of the work planning for the Phase II program, pending approval. The MEL database system for the phase II CRP will be developed pending approval of the program. In the meantime, a database will be developed to capture existing work of the Phase I and extension phases. The CRP is part of the CGIAR-level Monitoring Community of Practice that started operating in 2015.
10.	**EFFICIENCY: The CRP is encouraged to develop an effective communication strategy** that: • Promotes synergy between Centers and CRPs, communicating work across flagships and locations with effective mechanisms for sharing methods, tools and experience across crops and regions. • Identifies and tailors communication products from across Dryland Cereals partners for different stakeholders.	The CRP accepts this recommendation.	Please refer to responses and action items identified under Recommendation 4 above. The CRP website has been significantly changed recently and was launched on 05 Aug 2016 (www.drylandcereals.cgiar.org). It includes several portals for sharing of information from both within the CRP and from all partners and stakeholders. Though this revamping is fairly late in the life of the program, it can either be upgraded for the new Phase II program or

			information can be migrated into the website of the new Phase II program.
11.	**GENDER: The value of gender studies and social analysis could be maximized by Dryland Cereals management together with Center gender experts developing mechanisms for sharing findings and data from gender and social analysis (including of youth and other social groups)**, from the gender case studies and from Village Studies in India, highlighting implications for research activities, through a reinvigorated gender forum, or on- line seminars for scientists In Dryland Cereals.	The CRP agrees with this recommendation. The CRP gender team works closely with the Center's gender team members. The CRP gender team recognizes that CRP-level gender research is a partnership effort and engages with gender-related research and planning discussions with both participating Centers.	The CRP Gender team will work together with both participating Centers to reinstate a periodic gender forum including on-line seminars starting this year, and continuing into the second phase. Gender will be integrated into the design, development and delivery strategies for GLDC CRP phase 2, involving all participating Centers. Feedback links between gender analysis and the direction of research will be an important consideration.
12.	**GENDER: In consultation with the cross CRP gender network, it is recommended that Dryland Cereals management and gender experts develop plans for gender capacity development:** • In **gender and social analysis** for social scientist researchers in partner country NARS, particularly for West and North Africa. • In **gender issues in the work place**, especially for senior managers and staff drafting job descriptions or participating in recruitment, promotion and grant awarding panels. Ensure a more flexible working environment in terms of staff location, recognizing challenging conditions in some Dryland Cereals countries.	The CRP partially agrees with this recommendation.	The CRP Gender team together with the CRP management will develop a plan for gender capacity development for gender and social analysis, together with the required budget, for one country each in West and North Africa. Regarding gender issues in the workplace, the CRP has the purview only for the staff supported by the CRP Gender budgets; other staff and related aspects including job descriptions, flexible work locations etc for gender staff outside the CRP will be covered by the respective Centers.
13.	**PARTNERSHIPS: It is recommended that Dryland Cereals CRP develop a Partnership Strategy to guide future initiatives related to collaboration at different levels/with different stakeholders**. This would include: • **Identification of the need for further partnerships** based on an analysis of the critical linkages in the impact pathway in each country and crop and the types of partner and functions that are most appropriate to secure those linkages. • The evaluation team advises the development of	The CRP accepts this recommendation. The CRP has included its national partners in the planning and implementation during its initial phases until 2015. Reduced W1-2 budgets have made such active engagement increasingly difficult, although roughly 16-20% of total CRP budgets do support NARS partners through major bilateral projects. In addition, the USAID Linkage Grants have continued to provide opportunities for building and	During the remainder of the extension year 2016, the CRP will build on the basic partnership strategy developed as part of the Phase II proposal. This will support the Phase II program, pending approval, and will include the identification of the need for additional partnerships especially in the areas of post-harvest and value addition. Major bilateral projects of the program will continue to support

	stronger partnerships for effective development and delivery in post-harvest and value addition with a range of different organizations including research institutes with post-harvest expertise and with local small and medium enterprises. • **Enhancing the role of national partners of different categories** in planning, implementation and reporting of country activities and engaging in collaborative efforts to identify additional funding to support in country activities under Dryland Cereals.	strengthening partnerships with ARIs.	partnerships with NARS and other national and regional partners during Phase II as well. In addition, the Phase II program budgets include continuation of the Competitive Grants from the current DC program (called Innovation Fund in the GLDC proposal) which will engage NARS partners. The Phase II CRP GLDC will also consider the development of small agile research teams that include a cross-section of researchers (NARS, GLDC, ARI), with each holding the other accountable, and with mentoring of ARI researchers on collaborative research and co-publication,. Such small teams become easy to support through competitive grants. A good example was the small-team operation of the Generation Challenge Program. At a larger scale, a Community of Practice blog exchange for one or two crops will also be considered.
14.	**CAPACITY STRENGTHENING: Measures are needed to enhance non CGIAR /ARI partners' role in competitive grants,** and improve their success rate. Options might include: 1. Design a pre- proposal stage of capacity strengthening for non CGIAR partners. 2. Include a requirement for capacity building for national partners in all proposals 3. Designate a ring fenced percentage of the grant fund for NARS partners as PI with CGIAR or ARIs as Co- PIs.	Several partnerships were developed specifically during the first and extension phase of DC, most of them through the use of the Competitive Research Grant Scheme of the program. An example includes Doubled Haploid development in barley in collaboration with the Institute of Genech, Lille, France. This recommendation, given its timing, is largely relevant to the Phase II CRP and how it deals with competitive grants. In Phase II, the grant program will be run as an Innovation Fund which approval criteria including necessary capacity building for partners.	An Innovation Fund provided within Phase II is a mechanism to seize emerging opportunities that will catalyze market development and build capacity of partners. The Innovation Fund is a set % of W1-W2 allocations. In terms of the three options presented: 1. Funding is the key issue here, but participation in in-service training at a regional or country level is always possible and could be made a requirement if deemed necessary. 2. Agreed, but again, budgets preclude anything but in-service training or a small local scholarship for a Master level project. Subject to fund

			availability, the scholarship fund set up for DC (and GL) will be preserved for the eventual research leaders of the future in the NARS, involving MS and PhD level funding. 3. This is a good idea provided the PI has a track record of meeting the timelines and performance standards needed to lead a small research team.
15.	**IMPACT AND SUSTAINABILITY:** It is recommended that **the new CRP phase is based around specific *dryland* cereals and legume crop and livestock systems, regions and countries and shared partnerships**, rather than diversified to non-dryland crops in different ecologies.		After several rounds of discussions and evaluations of pros and cons, the Phase II proposal has been developed as a multi-commodity agrifood system program, and is pending approval. The Phase II GLDC proposal has articulated a focus on markets and the consequent productions that will feed into these markets. Dryland cereals, legumes and livestock are key elements of these production systems and have been incorporated into the Phase II proposal.