Cross-Cutting Annex

The following information has been provided to deepen the understanding of cross-cutting issues and has been taken directly from the Notice of Funding (NOFO) for the Climate Resilient Cereals Innovation Lab.

Abbreviations: CRCIL, Climate Resilient Cereals Innovation Lab; GFSS, Global Food Security Statregy; IL, Innovation Lab—CRCIL; ME, Management Entity—Kansas State University, NOFO, Notice of Funding;

From USAID NOFO for CRCIL:

The ME will develop a coherent approach to ensure that essential cross-cutting issues are addressed at both the program level and incorporated within individual component activities as appropriate. It is important to note that the product profiles will already have considered many of the cross-cutting issues and their relevance to varietal traits important to downstream users such as producers, processors, and marketers; however, the ME will serve as an important check to ensure that these concerns are fully addressed as far as the objectives of the CRCIL allow.

Applicants must ensure that the following cross-cutting issues are addressed in their Application, both across the IL portfolio and within component activities. Applicants are encouraged to utilize external sources, especially the ones provided within this NOFO and as footnotes, to guide their understanding of these issues beyond the descriptions presented here. USAID understands that the CRCIL will not be directly creating the new cereal crop varieties described by the product profiles, but it is in USAID's interest for Applicants to understand how those varieties take into consideration the crosscutting issues and how they impact the discovery of new alleles and genomic knowledge produced by the IL.

(i) Gender Equality, Equity, and Participation

USAID policy requires that gender equality be addressed as appropriate in all USAID-funded activities and that programming contribute to the USAID Gender Equality and Female Empowerment Policy[1] objectives and the GFSS Cross-

[1] https://www.usaid.gov/sites/default/files/documents/1865/GenderEqualityPolicy_0.pdf

cutting Intermediate Result of advancing gender equity and female empowerment.[2]

The ME is expected to outline key research processes or questions to support gender integration in
each objective and proposed Area of Inquiry. The CRCIL must develop knowledge, recommendations, tools, and strategies that recognize and account for the needs and multi-dimensional roles of both women and men in small-scale production and marketing systems. Gender sensitivity begins from initial product profiling and trait selection and continues through the agriculture innovation and market systems that support smallholder production, processing, and marketing. As the CRCIL develops technologies to accelerate breeding processes and build the genetic bases of cereal crops characteristics, it must ensure that such outputs reflect and contribute to the strengthening and accessibility of varieties that meet women's and men's needs as farmers, processors, and consumers. Similarly, the CRCIL must ensure that research efforts and outputs meet the needs of women and men as researchers. Efforts that engage other actors further downstream in strengthening and marketing must consider how factors such as access to agricultural information and cooperative membership, ability to access complementary inputs needed by new varieties, cost, and shifts in workload may differentially affect gendered uptake and impact of new varieties. Because men and women are not homogenous groups, the CRCIL must, to the extent possible, be sensitive to this diversity, and explicitly recognize the specific needs among different communities.

Gender-responsive agricultural research involves the identification of questions that are informed by and relevant to women's and men's roles, responsibilities, participation in, and benefits from agriculture innovation and market systems; the ability to collect and analyze data to answer those questions; and the ability to engage with and communicate findings to stakeholders. Gender analysis and integration must be implemented as a cross-cutting effort within all activities. Additional guidance on integrating gender can be found in the GFSS Gender Technical Guidance.[3]

Applications must demonstrate a clear understanding of gendered challenges and opportunities 1) among small-scale farmers that can be addressed through improved and available seeds, 2) in engagement of women in the seed systems value chains, 3) among researchers to adapt and respond to realize the potential of agriculture innovation and market systems, and 4) to reduce barriers to entry and advancement in research for women as scientists and as farmers. Where this

[2] https://www.feedthefuture.gov/resource/global-food-security-strategy-technical-guidance-on-advancing-gender- equality-andfemale-empowerment/
[3] https://www.feedthefuture.gov/resource/global-food-security-strategy-technical-guidance-on-advancing-gender- equality-andfemale-empowerment/

information is unavailable, Applicants must address knowledge gaps to ensure that outputs and outcomes of research conducted under the CRCIL are beneficial to both women and men.

(ii) Youth Inclusion

Similarly, yet distinct from the gender requirements noted above, the 2012 Youth in strengthening Policy[4] mandates the inclusion of critical priorities concerning youth (ages 10 – 29) across USAID's portfolio, and the GFSS has committed itself to mainstreaming youth in agriculture, food security, and nutrition whenever and wherever possible using a Positive Youth strengthening framework.[5] The CRCIL must be a youth-sensitive program that will develop knowledge, recommendations, tools, and strategies that recognize and account for the needs and multi-dimensional roles of youth in small-scale production and the innovation and market systems in which small-scale production is embedded.

Because young people are not homogenous groups, the CRCIL must, to the extent possible, be sensitive to this diversity, and explicitly recognize the specific needs of various groups and economic roles within the broader category of youth. In some instances, it may be necessary to conduct an analysis that improves the evidence base and allows for better targeting to advantage youth in livelihood generation. Youth analysis must be integrated within all activities.

Applicants must outline key research processes or questions to support integration of priorities concerning youth in each objective and proposed Area of Inquiry. Through youth analysis, Applicants must demonstrate a clear understanding of young men's and women's distinct roles in agriculture innovation and market systems; where this information is unavailable, Applicants must describe how they will assess and address knowledge gaps to ensure that outputs and outcomes of research conducted under the IL are beneficial to young men and women. Applicants must present an approach that addresses the critical need in agricultural research of a "pipeline" of interested youth who are willing to commit their professional lives toward advancing agriculture in their home countries.

(iii) Nutrition and Food Safety

A well-nourished population, especially among women and children, is a high-level goal of the GFSS. While multiple types of activities in several sectors are needed to meet this outcome, the CRCIL must focus research efforts on discovering alleles for traits critical in climate change adaptation, validating and transferring to elite background materials that improve and accelerate the varietal creation process toward meeting product profiles. As an example of downstream

[4] https://www.usaid.gov/policy/youth

[5] http://www.youthpower.org/

benefits, there is potential for households to adopt more nutritious diets through increasing availability of cereal crops that hold valuable nutritious properties and through biofortification of existing, popular cereal crops – both of which would be identified in product profiles. There is also an opportunity for new tools that will lead to increased understanding of how to breed cereal crops with greater intrinsic food safety (e.g., crops that resist toxic mold growths).

In response to these priorities, the ME will implement a coherent approach to ensure that nutrition is addressed in the context of cereal crops improvement research and capacity strengthening efforts at the program level, as well as incorporated within individual component activities as appropriate. Additionally, it is important to consider whether dietary changes result in new burdens placed on households, especially women. The USAID Multi-Sectoral Nutrition Strategy is a recommended resource.[6]

Applicants must demonstrate a clear understanding of how the CRCIL's research efforts and local capacity strengthening will lead to improved and/or new technologies that will be utilized to create improved cereal varieties and stronger agriculture innovation and market systems that contribute to improved dietary and nutritional outcomes.

(iv) Resilience and Risk Management

The second objective of GFSS is strengthened resilience of people and systems.[7] Resilience is the ability of people, households, communities, and systems to reduce, mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth. It is an essential condition for sustainably reducing global hunger, malnutrition, and poverty as well as to reduce reliance upon emergency food assistance. Studies conducted during the 2016 ENSO event found that households in Ethiopia participating in increased resilience programs experienced just a four percent decline in food security while other households experienced a decline of 30 percent. Other studies have found that each $1 spent on resilience yields almost $3 in emergency food aid savings.[8] Resilience is as important for enabling people to escape and remain out of poverty, hunger, and malnutrition everywhere USAID works with countries on their journey to self-reliance as it is for reducing (averting) the need for humanitarian assistance in areas of recurrent crises, where the primary focus of USAID's resilience work takes place.

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[6] The USAID Multi-Sectoral Nutrition Strategy addresses pathways to optimal nutrition. https://www.usaid.gov/nutrition-strategy

[7] https://www.usaid.gov/resilience/resources and https://www.feedthefuture.gov/resource/global-food-security-strategy-guidance-on-resilience/

[8] https://www.feedthefuture.gov/resource/global-food-security-strategy-guidance-on-resilience/

Risk is the potential for an uncertain event or trend to have adverse consequences on lives; livelihoods; health; property; ecosystems and species; economic, social, and cultural assets; service provision (including environmental services); and infrastructure. Notably, risk exposure, particularly weather risk exposure, impacts behavior and livelihood decisions *ex ante*, regardless of whether the shock actually occurs. Risk management is the set of activities, behaviors, decisions, and policies that allow individuals, households, and communities to mitigate (reduce) the likelihood or severity of a shock and to transfer or positively cope (without employing negative coping strategies, such as productive asset depletion) with shocks, stress, and risk exposure, including adaptation strategies that help individuals, households, and communities manage longer-term trends and stresses.

The GFSS Resilience objective also shares GFSS Intermediate Result 4 – Increased sustainable productivity, particularly through climate-smart approaches. Addressing the role of cereal crops improvement research in increasing productivity can improve resilience at household, community, and landscape levels and reinforce efforts to improve risk reduction, mitigation, and management amongst people and systems. Opportunities exist to examine which improvements need to be made to current cereal crops improvement research programs, including in forecasting future research needs as a means of reducing future risks, to enable them to respond more quickly and effectively to the challenges of climate adaptation, farm enterprise diversification, improved soil fertility, natural resources management, and input management. The product profiles will provide insight into which of these challenges may be most pressing or common across the portfolio and should be used as the ME's guide when selecting research activities. It is important, however, to also understand burdens on households and potential changes in gender dynamics within them and how various stakeholders respond to transformation in agricultural and food systems. In response to these priorities, the ME will implement a coherent approach to ensure that resilience and risk management is addressed in the context of research and capacity strengthening efforts at the program level and incorporated within individual activities as appropriate.

Applicants must demonstrate a clear understanding of how the CRCIL's research efforts will lead to improved and/or new technologies that will be utilized to create improved cereal crop varieties that contribute to increased resilience, risk management, and climate-smart agriculture.[9] Applicants must consider and detail how the CRCIL will strengthen functional capacities of local partners to adapt and respond to risks to realize the potential of innovation to strengthen the agriculture innovation and market systems.[10]

[9] https://www.agrilinks.org/search?criteria=climate+smart+agriculture

[10] https://tapipedia.org/framework/4-1-capacities

(v) Inclusion

Key to inclusive agricultural and economic growth is the inclusion of those most marginalized. Whether building on prior women's economic empowerment theory and evidence or engaging youth or persons with disabilities in meaningful and creative ways, the technical products produced by the CRCIL will reflect considerations for inclusive agricultural development.[34] In addition, the ME's operations and methods on the ground will incorporate the capacity and tools to identify and address the factors that underlie marginalization related to the CRCIL's activities. USAID recognizes that sometimes this means direct engagement with marginalized groups, but other times inclusion impacts may be created indirectly, with care to monitor actual results – this is likely to be the point of concern for the ME. USAID takes a broad view to inclusion, and specific groups of interest can and should vary and intersect depending on context, including the extreme poor; women; youth; people with disabilities,[35] ethnic and religious minorities; indigenous peoples; LGBTQI (lesbian, gay, bisexual, transgender, queer, and intersex) persons;[36] widows and orphans; and other marginalized groups. The ME will endeavor to include and not exclude these persons from benefiting from the associated research and activities of the CRCIL.

Applicants must demonstrate a clear understanding of how the CRCIL's research efforts will lead to improved and/or new technologies that will be utilized to create improved varieties and agriculture innovation and market systems that are inclusive of all groups. This must also include a discussion on how the Applicant will ensure that the IL's local capacity strengthening activities promote inclusivity.