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Update on the WANA initiative

Purpose

This update is provided for the information of the Board following on the decision by the CGIAR to develop a more focused GLDC CRP. This has resulted in discussion on the future nature of a regional support program for agricultural research in the WANA region, instigated by WANA country representatives.

Action Requested

Following from the discussion of initial progress on a WANA regional program at SC5, the Board may wish to provide advice or identify steps in future program definition and design that might be taken up by WANA national representatives. Concrete next steps might include the following alternatives:

- **Option 1:** Explore further the potential scope of a regional support program, requesting ICARDA to provide a more thorough concept note to be considered at the next SMB meeting.
- **Option 2:** Encourage that the initiative of regional partners be pursued for W3 and bilateral support.
- **Option 3:** Provide a strong statement of support that CGIAR should vigorously pursue the regional program initiative for potential inclusion in the CGIAR portfolio, and determine whether this would be made through a call to ICARDA or competitively.

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Background

1. SC4 in Amsterdam approved the call for a GLDC program (on grain legumes and dryland cereals) focussed on South Asia and Sub-Saharan Africa.
2. The Meeting recognised that this geographic focus reduced the level of CGIAR activities in the WANA region, notwithstanding the presence of ICARDA.
3. The System Council Chair invited the SMB to explore what the form of a regional agricultural support program might look like. The SMB invited ICARDA to take the lead in convening a regional consultation on a) a regional agricultural support program focussed on longer term research and not on post conflict relief and b) a program that was led and supported by regional donors.

Progress

4. At SC5, in Cali, the Turkish member of the System Council, representing the WANA region, reported that the leaders of national agricultural research institutes from the region had met in Beirut, Lebanon, on 13th and 14th September, in pursuit of developing such an initiative. Seven WANA countries plus Lebanon were present with ICARDA with observers from the FAO and CGIAR System Management Office. The meeting was hosted by the ICARDA Director General.
5. WANA countries had stressed their will to develop some sort of research support initiative as agriculture is still the primary source of livelihoods of more than 70% of the poor people living in rural areas of many countries in West Asian and North Africa. The agricultural sector contributes about 10% of regional GDP and a high share of employment (about 21%). The WANA region has a growing population but with limited arable land and very limited natural resources like fresh water. Except for Turkey, nearly all countries are dependent on food imports. The demand for agricultural goods is high in general, with food demand expected to be 15-20% higher in 2050. Projections of climate change and other risks suggest that production by 2050 under existing practices could actually be lower than at present.
6. The overall context in the region for research is difficult, as there is civil conflict, leading most of the international organizations and local governments to focus on humanitarian aid, not investing in research-based or longer-term benefits. Regional capacity is also an issue, e.g. sandpest was a predominant pest in wheat production, requiring collective action to be taken for plant protection but unfortunately Syria and Iraq did not have capacity in this area, so the insect has spread.

Elements of a possible future agricultural support program

7. The Turkish representative identified six elements¹ that participants to the meeting saw as necessary ingredients of a new potential program:
 - a) *To enhance the production of dryland cereals and legumes*, as discussed in GLDC, because these are the typical food material for the region. For WANA, crop improvement and new varieties are required for barley and legumes: barley is also feed material for livestock and the legume focus would be especially chickpea, lentils and fava beans.
 - b) *Support mechanisms to the region's agriculture*, especially poor areas, where productivity is very low. Development and dissemination of mechanization, and the introduction of precision agriculture and relevant information technology (IT).
 - c) *A broad-based approach to raise the efficiency of the use of water resources* (a major problem in the region, especially in North Africa) and the adoption of other climate-smart approaches.
 - d) *Support for socio-economic and policy research and gender issues* (these were listed but not elaborated in a concept note which was not tabled).
 - e) *A technology sharing and capacity development effort* so that, for example, the region can access the genetic information of the mentioned crops. More broadly this could be thought of as a bridge to international innovations in science and technology with those countries of the region (such Turkey, Iran, Egypt, Morocco) which have technical capacity but which could be enhanced through international and South-South networking.
 - f) *Seed system improvement* (as there are weak seed systems in the region, especially in the North Africa, Sudan and Ethiopia), to deliver the output of the breeding programs to growers, and to involve the private sector.
8. The overall goal is “to develop science based innovative technology to increase productivity, profitability, resilience and marketability of climate resilient crops through diversification and intensification of existing production systems”. The targeted countries would work on behalf of the whole region and the hope was that any program would have sufficient time trajectory (possibly seven to ten years) to reach tangible outcomes.
9. He confirmed that countries were willing to support and be involved in such an initiative and that the Islamic Development Bank is a targeted actor although their budget is more for social issues than technical ones. Local donors were unlikely to be able to meet the full costs of a projected program.
10. The Turkish representative appealed for guidance from the System Management Board on the form that such a program should take.

¹ The description of regional context and the main areas for future focus follow the verbal intervention by the Turkish member of the SC and not the concept note which was referred to but not tabled at the meeting

Guidance from System Council members

11. System Council members were understanding of the perspective that research approaches, in the current context for the region, were less easy to develop than assistance programs. Several members noted that very substantial assistance funds which could be used for research were becoming available through special regional initiatives (e.g. EC) or for specific partnership with academic institutes or agencies on subjects such as water (Sweden) or agriculture (France).
12. The SC Chair noted that the broad titles of the areas for the program might need to be refined into activities and dovetailed with the potential to assist of international donor programs. Notwithstanding the involvement of ICARDA with regional partners, the Chair suggested that in any iteration of the program development, the request to the CGIAR in terms of research collaboration and brokering scientific and policy linkages would need to be fleshed out more clearly. The presentation of areas (and references to a concept note) had not made it clear why the program concept was being presented to the CGIAR.

Possible considerations for the System Management Board

13. That germplasm enhancement research on barley and on regional legume varieties is within the strong suit of the ICARDA program. Seed system development will require engagement with local players on a larger scale and need means of brokering appropriate private sector involvement.
14. That a more broadly fashioned support program dealing with water, resources governance and other aspects of climate change should consider other CGIAR capacity (WLE, PIM and CCAFS CRPs for instance), what information might be sought (including from GenSys, the Big Data or Excellence in breeding platforms) and how it would be interfaced for broad value to regional partners.
15. The requirements for social science (including gender studies) and policy research are probably most evident to national partners and the means by which any international support can be deployed (on a case by case research basis? by making methods and best practice advice available to governments and local entities?) need to be turned into practical demands for research projects or information hub arrangements.
16. Capacity development goals – e.g. by discipline (including social sciences and gender), plant protection capacity, institutional strengthening targets etc. – would need to be formulated and prioritized so that programmatic funding can be tailored to (contributions to) realistic deliverables.
17. The System Management Board may consider appointing a contact person to provide responses on the sorts of interfaces with CGIAR and other global players which might be appropriate to the program, including funder intelligence.

18. Noting the importance of sustaining agriculture in the WANA region, and human capacity relevant to the sector, and taking account of paragraphs 13 – 16, the SMB may wish to encourage the development of a regional initiative. Options could include:
- **Option 1:** Explore further the potential scope of a regional support program, requesting ICARDA to provide a more thorough concept note to be considered at the next SMB meeting.
 - **Option 2:** Encourage that the initiative of regional partners be pursued for W3 and bilateral support.
 - **Option 3:** Provide a strong statement of support that CGIAR should vigorously pursue the regional program initiative for potential inclusion in the CGIAR portfolio, and determine whether this would be made through a call to ICARDA or competitively.



Annex 1: Building Resilience and Competitiveness
in Dryland Agriculture in West Asia and North Africa (WANA)

Purpose

To provide the Board with an additional explanatory note provided by ICARDA on 4 December 2017 to contribute to the Board's discussions in Washington, D.C.

Document prepared by: ICARDA

BUILDING RESILIENCE AND COMPETITIVENESS IN DRYLAND AGRICULTURE OF WEST ASIA AND NORTH AFRICA (WANA)
Background and Rational

Agriculture is the primary source of livelihoods for >70% of the poor people living in rural areas of many countries in the West Asia and North Africa (WANA) region. The agriculture sector contributes about 10% to the regional GDP and employs 21% of the population. WANA is characterized by high population growth, limited arable land, low and erratic rainfall, and severely limited water resources. There are about 0.6 billion people living in this region (7.5% of the world population), whose annual population growth rate is 2.1% (<http://www.worldometers.info/world-population/population-by-country/>). **This ever-rising population in the region places a great pressure on natural resources and land-use in the driest region of the world with around 130 million ha of arable land but experiencing acute water scarcity. About 80% of its food production comes from dryland areas that depend on erratic rainfall (~150 mm average annual precipitation). Furthermore, scarcity and degradation of natural resources for agriculture, climate change, drought and temperature extremes –which are increasing in frequency and intensity– impact significantly rainfed smallholder farming systems in WANA. Civil conflicts and social unrests, are other important constrains affecting the availability and access to food, thus bringing poverty and hunger to many affected rural people, who continue migrating to urban areas or overseas to other continents, particularly Europe. One solution to the migration crisis is a sustained effort to strengthen the resilience of agriculture against a backdrop of rising temperatures and increasing water scarcity.**

Cereals account for 96% of the total agricultural production in WANA region. These cereal-based systems are resource-intensive, causing water scarcity, soil depletion and high levels of greenhouse gas emissions. Moreover, they cannot deliver sustainable food production as reflected by the declining total factor productivity in the region. Because of intensive cereal-livestock farming, WANA has witnessed increasing atmospheric concentrations of greenhouse gases, rising temperature, declining water tables and frequent droughts. Key challenges to the future agriculture in WANA include threats posed by climate change, intensification of natural disasters, frequent outbreaks of pests and diseases, and the need to adjust to major changes taking place in global food systems. Hence, science-based innovations that accelerate the agricultural production without further constraining the natural resource base are necessary but along with transformative changes in agriculture and food systems. Climate-smart barley and legumes, as well as legumes-inclusive production systems play therein important roles by delivering multiple benefits that may bring the transformative changes in agri-food systems that should meet regional challenges noted above.

Barley, faba bean, kabuli chickpea and lentil are strategic crops in the dry areas due to their ability to withstand climate impacts, support livelihoods, promote sustainable agri-food systems and contribute to a food secure future. Yet, these crops are underutilized, under-valued and under-funded in research for development agendas despite their potential to help countries meet their strategic goals set forth in their national development agendas, including the sustainable development goals (SDGs) under changing climate conditions. Given anticipated hotter and drier climates that will prevail across WANA, food market instabilities, food security risks and the increasing vulnerability of smallholder farmers and their livestock, this initiative proposes the establishment of a Regional Research-for-Development Consortium in Agriculture for West Asia and North Africa (WANA Dryland Program).

The proposed Consortium will support long-term regional research to improve the productivity of food legumes and barley and contribute to building profitable, sustainable and resilient smallholder farming systems to support countries in achieving a food secure future as well as meet the sustainable development goals (SDGs) and global climate change adaptation and mitigation agendas. Specifically, the Consortium will bring synergies in terms of deploying expertise and resources to develop an integrated, value chain-led approach to food legumes and barley research for development (R4D) and improve knowledge generation and sharing across regional settings. Building on the indigenous and traditional knowledge coupled with improved technologies generated by partnerships between National Agricultural Research Systems (NARS) and the CGIAR, this collaboration will provide the platform to test, develop and promote transboundary agriculture and food systems.

Goal, Targets and Partners:

The overall goal is to develop science-based innovative technologies to increase productivity, profitability, resilience and marketability of barley, kabuli chickpea, lentil and faba bean through diversification and intensification of the existing production systems to increase the competitiveness of WANA in the production of barley and these food legumes. The program targets to increase barley production by 12 million tons and food legumes by 2.5 million tons to benefit 1.2 million farm households to adopt improved cultivars and production technologies by 2023 and 0.5 million people coming out of the poverty.

The WANA program will support the implementation of 2017-22 portfolio by providing its knowledge, experience and research outputs to be scaled up and disseminated in similar agro-ecologies served by CRPs. Likewise, the WANA program is envisaged to contribute to the overall CRP portfolio by using this region satellite sites for the scaling-up and dissemination of relevant research outputs. The proposed WANA program is thought to be funded by countries, regional donors and hopefully by the CGIAR donors. It is not to compete with the funds allocated for CRPs or research portfolio for the 2017-2022. Any potential funding from the CGIAR donors is envisioned to be from other funding schemes outside their funding to the CRPs. However, CGIAR cooperation and recognition to the region is very much needed to support this initiative and the scientific knowledge output to improve the productivity, profitability and competitiveness of these strategic crops to contribute to enhancing food and nutritional security and improving the resilience of farming communities to climate change.

It will be implemented in partnership with CGIAR Centers (not just ICARDA) , ARC (Egypt), GDAR (Turkey), DARI and AREEO (Iran), INRA (Morocco), ARC (Sudan), EIAR (Ethiopia), ICAR (India), and targeting Crop-livestock systems in the drylands and highlands of Egypt, Ethiopia, Iran, Morocco, Sudan, Turkey.