



MINUTES

Final Workshop of the FAO project GCP/RER/030/TUR

Conservation Agriculture for Irrigated Areas in Azerbaijan, Kazakhstan and Uzbekistan

Final Workshop of the FAO project GCP/RER/030/TUR: **Conservation Agriculture for Irrigated Areas in Azerbaijan, Kazakhstan and Uzbekistan** was held in Tashkent, Uzbekistan, on 10-11 December 2013. The main objective of the Final Workshop was to highlight and review the most important technical results generated in the project during the last three years and to promote conservation agriculture in the project countries.

This workshop brought together the representatives of FAO, GIZ-Tajikistan, ICARDA and the National consultants on economics, irrigation, mechanization and agronomy from Azerbaijan, Kazakhstan, Tajikistan and Uzbekistan. Overall, about 30 participants attended the regional event. It is worth to note that almost all participants had experience on conservation agriculture (CA) while some of them had a little knowledge of CA practices.

The opening session was chaired by Dr. Jozef Turok, Head PFU and Regional Coordinator ICARDA-CAC. Dr. Abdumalik Namozov, Head, Department of Innovation, Ministry of Agriculture and Water Resources of the Republic of Uzbekistan, Dr. Hafiz Muminjanov Plant Production and Protection Officer, FAO-SEC, Ankara, Turkey and Dr. Turok, Head PFU and ICARDA-CAC Regional Coordinator, made welcome speeches in the opening session on importance of conservation agriculture Central Asian Countries and Azerbaijan; they believed that scientific advances, especially in agricultural research, natural resources management, information and communication and biotechnology must lead to a sustainable development in the region.

Various resource persons made presentations during the second session of the Final Workshop. The first presentation was delivered by Dr. Hafiz Muminjanov, "Global and Regional Adoption and Promotion of Conservation Agriculture". This was followed by the presentations on the topics "Natural resources management agenda in Dryland Systems and other CGIAR Research Programs in Central Asia and the Caucasus" by Dr. Jozef Turok, "ICARDA's research strategy on sustainable intensification in the dry areas" by Dr. David Feindel, Acting Director DSIPS Program, ICARDA, and "Promoting conservation agriculture in Central Asia and the Caucasus" by Dr. Aziz Nurbekov, Agronomist/Project Regional Coordinator, ICARDA-CAC. These presentations gave a very comprehensive overview of CA and highlighted some key constraints for the introduction and adoption of conservation agriculture practices. At the end of the presentations participants put questions and made comments concerning the breeding of crop varieties suitable for CA, development and production of CA equipment, comparative advantage of wheat growing under zero-till,

the weed management in conservation agriculture and figures about main agricultural production and yields in Central Asia and Azerbaijan.

Then floor was given to the participants from the countries to present project results. National consultants from Azerbaijan, Kazakhstan and Uzbekistan presented the outputs of the activities on improved crop and irrigation management and also on development of no-till drills in the project countries. The main outcomes of these presentations were as follows:

- research proved feasibility, potential and sustainability of no-till in the region;
- no-till technology involving minimal soil disturbance and some residue retention facilitates adoption of enhanced management options;
- conservation agriculture can increase agricultural productivity through improving soil fertility in the region and
- local no-till seeder has been successfully developed in Uzbekistan and ready for field testing and can be manufactured with an affordable cost to farmers.

The speakers from the participating countries showed a wide diversity of experiences on conservation practices and appreciated the opportunity for sharing that experience. There were fruitful discussions after each presentation. The participants exchanged their views on promotion of conservation agriculture in the region. The Governments of some countries in the region have invested more on CA equipment, as we may observe in Kazakhstan.

During the final session of the workshop the participants shared their impression about the workshop and provided critical and valuable inputs to the recommendations of the workshop. There are a number of challenges that CA faces throughout the largely agricultural region of Central Asia and the Caucasus, including lack of crop diversification on small-size farming areas, knowledge about CA systems among extension and technical staff, knowledge about CA at decision-making levels, farmers' ability to decide on diversified crop rotations, and CA equipment. Participants once again stressed the need for and importance of conservation agriculture practices for achieving the balance between agro-ecosystems' sustainability and increased crop production in the region.

During the Final Workshop, the participants were also exposed to different stages in implementation of key elements of CA and local adjustments that need to be introduced in different components of existing farming techniques. The key conclusions and recommendations are summarized and presented at the end of this report.

Closing session

The afternoon session continued with a wrap-up session chaired by Dr. Hafiz Muminjanov. The workshop was successful in the sense that national consultants successfully reported results of the project and made useful recommendations. It should be also mentioned that the participants realized the need of promotion of the conservation agriculture practices in the region. This was well reflected during the discussion sessions after each presentation. The participants reported on their impression about the workshop as follows:

Dr. Imran Jumshudov: It was indeed interesting to work on this project. There was an interest among farmers in participatory research activities of the project sites in Azerbaijan. By having only one no-till drill we managed to increase area under CA up to 2000 ha. Have already some no-till research fields; some of the farmers are very advanced and forward looking, already diversifying crops. I kindly request FAO to finance new project on conservation agriculture in order to speed-up adoption of CA in Azerbaijan.

Prof Dossymbek Sydyk, expressed his gratitude to ICARDA for productive cooperation on the conservation agriculture project. An integrated approach used for designing the project ensured good results. Farmers are keen to promote CA in their fields. The no-till drill provided by the project is used in the farmers' field on about 2000 ha. Believe that the future is for CA as routine technology in southern Kazakhstan. CA project needs more promotion in Southern Kazakhstan, more than anything else for machinery. All types of farmers, large and small should be supported. I join what Dr. Imran Jumshudov already mentioned as there also is a need for new project on crop diversification under conservation agriculture in the South Kazakhstan province.

Dr. Nazrulla Amirov, Tajikistan: CA is a new technology in Tajikistan, but we are interested in new ideas if we investigate economy of the CA technologies in our country. The concept on no-till is still new to us, we learned a lot about no-till and CA from presentations made in the workshop. I think this is the technology of the future.

Dr. Zokhidjon Ziyadullaev, Uzbekistan: the governor of Kashkadarya province and a manufacturer were supportive of a local production of the no-till drill in Uzbekistan. Project demonstration site in Karshi district can be demonstrated to the Minister, Ministry of Agriculture and Water Resources of Uzbekistan. We see benefits from this final workshop for second phase of this project. Now only by one no-till drill we are planting more than 2000 ha. Need to disseminate more the existing information about CA, which already exists in the country.

Dr. Zakir Khalikulov, ICARDA-CAC: We should speed up field testing of the no-till drill developed within this project, if seriously an upscale is wanted. We should prepare a project proposal on development of no-till drill in the region using experiences of all specialists who was tried to develop no-till drills in region.

Dr. Aziz Nurbekov, ICARDA-CAC: local no-till development is absolutely essential for up-scaling and should be affordable to the farmer. Local no-till drills should be developed based on old locally available conventional seeders this lead us to easily produce local drills. The project is paved the way for the adoption of conservation agriculture as an alternative to the currently used methods of crop production in Central Asia and the Caucasus. The region could benefit from a common history to develop regional technologies.

Dr. David Feindel, ICARDA: I congratulate Uzbek team with development of no-till drill. Development of no-till drill is good start to promote conservation agriculture in the region. World experience on adoption conservation agriculture shows that only countries with local production of no-till is adopting CA practices fastest compared to other countries where no-till manufacturer is not in place.

Dr. Hafiz Muminjanov made closing remarks in the wrap-up session and gave the vote of thanks to all the participants for coming to the regional training workshop, for their active participation, for valuable inputs and suggestions. He also indicated on a need for the second phase for new project on promotion of

conservation agriculture in the region. Moreover he supported the idea about formulation of the specific project on development of no-till drill in the region that leads to make further steps on adoption and promotion of conservation agriculture in the region.

Recommendations

Recognizing the importance given to the development of the agricultural sector by the Governments of the region, and after reviewing the conservation agriculture project country reports and considering critical issues, raised during the final workshop of the project, the key conclusions and recommendations are summarized and presented below:

- Local no-till drill development is absolutely essential for up-scaling of conservation agriculture practices in the region and manufacturing of no-till drill should be organized. The project proposal on development of no-till drill in the region to be formulated and implemented.
- Another crucial factor is availability of affordable and appropriate CA equipment for the specific farming conditions.
- Both types of crop diversification as single crops and double cropping systems will be essential to improve sustainability of farming and income generation at the local, regional and national levels. Prepare a project proposal on crop diversification under conservation agriculture for each country in the region.
- It will be helpful if the Government would encourage the CA practices to enhance agricultural production of salt- and drought-affected regions, which are extremely important issues in the region.
- Assist the Governments of the countries in the region in formulation and implementation of the national strategies on adoption and promotion of conservation agriculture. Prioritize the training programs and focus on no-till, raised-bed practices and their development and improvement.
- Carry out awareness raising campaigns, establish and arrange demonstration sites, field days, workshops and seminars for wide adoption and promotion of CA.
- Close collaboration of all stakeholders for introduction and up-scaling of CA, particularly farmers, farmer's communities, NGOs, Machinery industry, Government offices and institutions, universities, and also higher ministry levels is suggested.

Acknowledgement

The strong support provided by the Azerbaijan, Kazakhstan and Uzbekistan authorities is the driving force behind the success of this project. The strong support of the local authorities was clear through the large and high level delegation which participated to the implementation of the project on conservation agriculture. Strong technical cooperation of ICARDA and FAO with the national partners and the financial support provided by the Government of Turkey for implementation of the project is highly appreciated and acknowledged.

Workshop agenda**Monday, December 9**

Arrival of the participants

Tuesday, December 10

08:30 – 09:00 Registration

Chairman: Prof. Sherali Nurmatov, Deputy Minister, Ministry of Agriculture and Water Resources, Uzbekistan

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| 9:00 – 9:30 | Welcome speech – Ministry of Agriculture and Water Resources (MAWR), Uzbekistan, FAO and ICARDA |
| 9:30 - 10:00 | Global and Regional Adoption and Promotion of Conservation Agriculture – Dr. Hafiz Muminjanov, Crop Production and Protection Officer, FAO/SEC |
| 10:00 - 10:30 | Natural resources management agenda in Dryland Systems and other CGIAR Research Programs in Central Asia and the Caucasus – Dr. Jozef Turok, Head PFU-CGIAR / ICARDA Regional Coordinator |
| 10:30 - 11:00 | Coffee/tea break and group photo |

Chairman: Dr. Jozef Turok and Dr. Hafiz Muminjanov

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| 11:00 - 11:30 | ICARDA's research strategy on sustainable intensification in the dry areas – Dr. David Feindel, Director DSIPS Program, ICARDA |
| 11:30 - 12:00 | Promoting conservation agriculture in Central Asia and the Caucasus– Dr. Aziz Nurbekov, Agronomist / Project Regional Coordinator, ICARDA-CAC |
| 12:00 - 12:30 | Discussions |
| 12:30 - 13:00 | Discussion of project results on agronomy in Azerbaijan – Dr. Imran Jumshudov, Conservation Agriculture Specialist, Azerbaijan Research Institute of Crop Husbandry |
| 13:00 - 14:00 | Lunch |

Chairman: Dr. David Feindel and Dr. Aziz Nurbekov

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| 14:00 - 14:30 | Water saving technologies of agricultural crops in Azerbaijan – Dr. Seymur Safarli, Director, Research Institute of Erosion and Irrigation |
| 14:30 - 15:00 | Growing agricultural crops under conservation agriculture in Southern Kazakhstan - Prof. Dossymbek Sydyk, Head Department of Husbandry, South-West Kazakhstan Research Institute of Livestock and Crop Production |
| 15:00 - 15:30 | Water saving technologies of agricultural crops in South Kazakhstan – Dr. Ajar Karabalayeva, Head Department of Irrigation, South-West Kazakhstan Research Institute of Livestock and Crop Production |
| 15:30 - 16:00 | Coffee/tea break |
| 16:00 – 16:30 | Final aspects of imported conservation agriculture equipments and suggestions to improve its operating characteristics – Dr. Rakhimjan Medeubaev, Head Department of mechanization, Krasnovodpad Experimental Station, Kazakhstan |
| 16:30 - 17:30 | Discussion |
| 19:00 - 21:00 | Reception dinner |

Wednesday, 11 December

**Chairman: Dr. Hafiz Muminjanov and Dr. Akmal Akramkhanov, Project Regional Coordinator,
ICARDA-CAC**

09:00 - 9:30	Conservation Agriculture project results in Uzbekistan – Dr. Zokhidjon Ziyadullaev, Director, Kashkadaray Research Institute Breeding and Seed Production of Cereals
9:30 - 10:00	Effectiveness water saving technology in the project demo site - Dr. Ravshan Boyirov, Water specialist, Tashkent Institute of Irrigation and Melioration
10:00 – 10:30	Development of no till drills in Uzbekistan – Prof. Yormamat Kholiayrov, Principal Scientist, Uzbek Research Institute of mechanization and electrification of agriculture
10:30 – 11:00	Coffee/tea break
11:00 – 11:30	Discussion
11:30 - 12:00	Wrap-up and closure of the training workshop
12:00 - 12:30	Closing remarks Dr. David Feindel Dr. Jozef Turok Dr. Hafiz Muminjanov MAWR of the Republic of Uzbekistan
13:00 - 14:00	Lunch
14:00	Departure of participants

List of participants

#	Name	Position / Institution
NARS Partners: Azerbaijan		
1	Dr. Imran Djumshudov	Conservation Agriculture Specialist, Research Institute of Crop Husbandry
2	Dr. Seymur Safarli	Director Research Institute of Erosion and Irrigation
Kazakhstan		
3	Dr. Ajar Karabalayeva	Head Department of Irrigation, South-West Kazakhstan Research Institute of Livestock and Crop Production
4	Dr. Rakhimjan Medeubaev	Head Department of mechanization, Krasnovodpad Experimental Station
5	Dr. Dossymbek Sydyk	Department Head, Scientific-Production Center of Agriculture, South-Western Kazakhstan
Tajikistan		
6	Dr. Nazrullo Amirov	Director, Research Institute of Agricultural Economics
7	Dr. Joachim Lenz	International Consultant Agriculture Auditor Organic Agriculture
8	Mr. Nurali Oymakhmadov	Head of Department, Division Mechanization, Research Institute of Agriculture
9	Mr. Jamshid Sanginov	Agricultural expert DFID/BMZ funded project Grows for Rural Economy and Agriculture of Tajikistan
10	Mr. Bakhrillo Yatimov	Specialist, Department of Agronomy, Research Institute of Agriculture
Uzbekistan		
11	Mr. Botir Amanturdiev	Specialist, Uzbek Scientific Production Center for Agriculture
12	Dr. Ravshan Boyirov	Water specialist, Tashkent Institute of Irrigation and Melioration
13	Dr. Zokhid Ziyadullaev	Director, Kashkadarya Scientific Research Institute for Breeding and Seed Production of Cereal Crops

14	Dr. Abdumalik Namozov	Head of Department for Foreign Investments and Monitoring of Projects, Ministry of Agriculture and Water Resources of Uzbekistan
15	Prof. Sherali Nurmatov	Deputy Minister of Agriculture and Water Resources of Uzbekistan, Director General of Uzbek Scientific Production Center for Agriculture
16	Mr. Alisher Ochilov	Specialist, Kashkadarya region Khokimiyat
17	Prof. Yormamat Kholiayrov	Principal Scientist, Uzbek Research Institute of mechanization and electrification of agriculture
18	Dr. Aleksey Volkov	Head SGP in Uzbekistan
FAO		
19	Dr. Hafiz Muminjanov	Crop Production and Protection Officer, FAO/SEC
ICARDA		
20	Dr. Akmal Akramkhanov	Project Coordinator Knowledge Management in CACILM II, Central Asia and the Caucasus
21	Dr. Harun Cicek	Agronomist
22	Dr. David Feindel	Acting Director DSIPSP / Cropping Systems Agronomist
23	Dr. Zakir Khalikulov	Deputy Regional Coordinator, Central Asia and the Caucasus
24	Mr. Nariman Nishanov	Project Field Research Coordinator, Central Asia and the Caucasus
25	Dr. Aziz Nurbekov	Project Regional Coordinator, Central Asia and the Caucasus
26	Dr. Jozef Turok	Regional Coordinator, Central Asia and the Caucasus
27	Mr. Tulkin Yuldashev	Water Specialist
28	Dr. Botir Dosov	Consultant, CACAARI
29	Mr. Askar Juraev	Translator