

# Publications - 2016

*This document provides a list of recent publications by staff and partners of the CGIAR Regional Program for Central Asia and the Caucasus. The Program aims at reducing poverty and hunger, improving human health and nutrition, and enhancing ecosystem resilience through high-quality international research, partnership and leadership in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan) and the Caucasus (Armenia, Azerbaijan and Georgia).*

## ISI Journal Articles:

1. Awan U., Ibrakhimov M., Benli B., Lamers J., Liaqat U. 2016. A new concept of irrigation response units for effective management of surface and groundwater resources: a case study from the multi-country Fergana Valley, Central Asia. *Irrigation Science*. 35:55-68. [doi: 10.1007/s00271-016-0521-9](https://doi.org/10.1007/s00271-016-0521-9)
2. Choukr-allah R., Nanduri K., Hirich A., Shahid M., Alshankiti A., Toderich K., Gill Sh., Butt K. 2016. Quinoa for marginal environments: Towards future food and nutritional security in MENA and Central Asia regions. *Frontier in Plant Science*. 7:346. [doi: 10.3389/fpls.2016.00346](https://doi.org/10.3389/fpls.2016.00346)
3. Gulyaeva E., Shaydayuk E., Goncharov N., Akhmetova A., Abdullaev K., Belousova M., Kosman E. 2016. Virulence of *Puccinia triticina* Eriks. on Triticum and Aegilops species. *Australasian Plant Pathology*. 45:155-163. [doi:10.1007/s13313-016-0395-6](https://doi.org/10.1007/s13313-016-0395-6)
4. Hyman G., Barona E., Biradar C., et al. Priority regions for research on dryland cereals and legumes. 2016. *F1000Research*, 5:885. [doi: 10.12688/f1000research.8657.1](https://doi.org/10.12688/f1000research.8657.1)
5. Junna M. R., Jumaboev K., Bobojonov I., Carli C., Eshmuratov D. 2016. Yield and Water Use Efficiency of Potato Varieties under Different Soil-Moisture Stress Conditions in Fergana Valley of Central Asia. *Agroecology and Sustainable Food Systems*. 40:407-431. [doi:10.1080/21683565.2016.1141145](https://doi.org/10.1080/21683565.2016.1141145)
6. Löw F., Waldner F., Navratil P., Latchininsky A., Bolkart M., Colditz R. and Biradar C. 2016. Timely monitoring of Asian Migratory Locust habitats in the Amudarya delta, Uzbekistan using time series of satellite remote sensing vegetation index. *Environmental Management*. 183:562-575. [doi: 10.1016/j.jenvman.2016.09.001](https://doi.org/10.1016/j.jenvman.2016.09.001)
7. Mukhamedjanov S., Mukhamedjanov A., Yuldashev T., Dukhovny V. 2016. Optimizing Use of Water for Cotton Production using ET based Irrigation scheduling Technique in the Fergana Valley, Uzbekistan. *Annals of Arid Zone*. 55: 1-8. [doi: 2016/2016SD-12](https://doi.org/2016/2016SD-12)
8. Nurbekov A., Akramkhanov A., Kassam A., Sydyk D., Ziyadullaev Z., Lamers J. 2016. Conservation Agriculture for combating land degradation in Central Asia: a synthesis. *AIMS Agriculture and Food*. 1: 144-156. [doi: 10.3934/agrfood.2016.2.144](https://doi.org/10.3934/agrfood.2016.2.144)
9. Nuriyeva S., Akparov Z., Hajiyev E., Abbasov M., Sharma R.C. 2016. Evaluation of wheat genetic resources of Azerbaijan on normal and saline fields. *Turkish Journal of Agriculture and Forestry*. 40:186-193. [doi: 10.3906/tar-1502-84](https://doi.org/10.3906/tar-1502-84)
10. Oyiga B., Sharma R.C., Shen J., Baum M., Ogbonnaya F., Leon J., Ballvora A. 2016. Identification and characterization of salt tolerance using a multivariable screening approach of wheat germplasm. *Journal of Agronomy and Crop Science*. 202:472-485. [doi:10.1111/jac.12178](https://doi.org/10.1111/jac.12178)
11. Rustamova I. 2016. Evaluation of Economic Efficiency of using Resource Saving Technologies (Conservation Agriculture) in Irrigated Lands. *Journal of Global Economics*. 4:197. [doi: 10.4172/2375-4389.1000197](https://doi.org/10.4172/2375-4389.1000197)

12. Shamanin V., Salina E., Wanyera R., Zelenskiy Y., Olivera P., Morgounov A. 2016. Genetic diversity of spring wheat from Kazakhstan and Russia for resistance to stem rust Ug99. *Euphytica*. 212: 287. [doi: 10.1007/s10681-016-1769-0](https://doi.org/10.1007/s10681-016-1769-0)
13. Sharma P.D., Sharma R.C., Duveiller E. 2016. Control of Helminthosporium leaf blight of spring wheat using seed treatments and single foliar spray in Indo-Gangetic Plains of Nepal. *Crop Protection*. 16:161-166. [doi: 10.1016/j.cropro.2016.06.017](https://doi.org/10.1016/j.cropro.2016.06.017)
14. Sharma R.C., Nazari K., Amanov A., Ziyaev Z., Jalilov A. 2016. Reduction of winter wheat yield losses caused by stripe rust through fungicide management. *Journal of Phytopathology*. 164:671-677. [doi: 10.1111/jph.12490/epdf](https://doi.org/10.1111/jph.12490/epdf)
15. Holmatov B., Lautze J. 2016. Thinking inside the Basin: Scale in Transboundary Water Management. *Natural Resources Forum*. 40:127-138. [doi: 10.1111/1477-8947.12099](https://doi.org/10.1111/1477-8947.12099)

### Non-ISI Journal Articles:

16. Asoev N., Ibragimov N., Nurbekov A., Yatimov B., Khomatov A. 2016. Winter wheat productivity under different tillage methods. *Journal of Tajik Academy of Science* [In Russian]
17. Baymetov K., Turdieva M., Ahmedov Sh., Dorohova E. 2016. Traditional knowledge and skills of farmers in Uzbekistan in seed and planting material production of fruit trees and vegetable crops. *Science and Technology*. p.28 [In Uzbek]
18. Bekchanov B., Rabbimov A., Toderich K., Mukimov T. 2016. Technology of preparation of cuttings of Tamarisk and their practical application to improve the productivity of saline lands. The formation and development of agricultural science in XXI century. *Collection of scientific articles of Shcherbakov N.A. "PNIIAZ" FGBNU*. pp. 240-244 [In Russian]
19. Gafurov Z., Kattakulov F., Eshmuratov D. 2016. Water surface dynamical change analysis of Sudochi Lake in Aral Sea area using Remote Sensing Information. *Journal of Irrigation and Melioration*. № 02(4). 2016. ISSN 2181-8584. Tashkent Institute of Irrigation and Melioration
20. Massino I., Boboev F., Toderich K., Gupta Sh., Ismail Sh., Dakheel A., Zhapaev R., Popova V., Baizakova A., Kalashnikov P. 2016. A new early maturing pearl millet variety "Hashaki 1" of High Quality and Forage Yield Resistant to Salinity in Uzbekistan. Research in melioration and water management. *Collection of research papers*. Kazakh Research Institute of Water Management. V 52, Issue 2. pp. 92-101 [In Russian]
21. Nurbekov A., Aybergenov B. 2016. Environmental and economic feasibility of the transition from conventional to no-till technology in Northern districts of Karakalpakstan. *Journal of Agriculture*. Tashkent, Uzbekistan
22. Tautenov I., Bekzhanov S., Zhapayev R., Zayirov S. 2016. Study planting dates grades and conditions accessions of sorghum in Kyzylorda region. "*Herald of Kyzylorda*" Journal. Kazakh State University named after Shakarim. № 1(73), pp.262-265
23. Tautenov I., Ujuhu A., Bekzhanov S., Zhapayev R. 2016. Water regime and mineral fertilizers in crop sweet sorghum in the conditions of Kazakhstan's Aral Sea area. *Bulletin of Science, KATU*. № 3(90), pp.75-83
24. Tsygankov V., Tsygankov I., Tsygankova M., Zelenskiy Y., Tsygankova N. 2016. Spring wheat varieties resources of West Kazakhstan and their role in high-quality grain production technology. *Kuban State Agrarian University Research Journal*. V.59, № 2, pp.398-405

## Book and book chapters:

25. Aralova D., Toderich K., Jarihani A., Gafurov D., Gismatulina L. 2016. Monitoring of vegetation condition using the NDVI/ENSO anomalies in Central Asia and their relationships with ONI (very strong) phases. *In the Book: Earth Resources and Environmental Remote Sensing/GIS Applications VII*. Eds: Ulrich Michel, Karsten Schulz, Manfred Ehlers, Konstantinos G. Nikolakopoulos, Daniel Civco
26. Aralova D., Toderich K., Jarihani A., Gafurov D., Gismatulina L., Babatunde A. Osunmadewa and Majdaldin Rahamtallah Abualgasim. 2016. Environmental resilience of rangeland ecosystems: assessment drought indices and vegetation trends on arid and semi-arid zones of Central Asia. *In the Book: Earth Resources and Environmental Remote Sensing/GIS Applications VII*. Eds: Ulrich Michel, Karsten Schulz, Manfred Ehlers, Konstantinos G. Nikolakopoulos, Daniel Civco
27. Alirzayeva E., Ali-zade V., Shirvan T., Toderich K. 2016. Evaluation of Wild Halophytes of Aralo-Caspian Flora towards Soil Restoration and Food Security improvement. *Plants, Pollutants and Remediation*. Springer. pp. 63-99
28. Lebedeva M., Shuiskaya E., Toderich K. 2016. Soil forming processes and genetic diversity of *Haloxylon aphyllum* in the deserts of Uzbekistan. *Land resources and food security of Central Asia and Southern Caucasus*. Eds: Krasilnikov P., Konyushkova M., Vergas R. FAO, Rome. pp. 370-391
29. Nurbekov A., Kassam A., Sydyk D., Ziyadullaev Z., Safarli S., Muminjanov H., Feindel D., Turok J. 2016. Practice of Conservation Agriculture in the irrigated areas in Azerbaijan, Kazakhstan and Uzbekistan. 86 pp.

## Brochures and recommendations:

30. Azimov B., Mavlyanova R., Azimov B. 2016. Recommendations on hot pepper production. Guide. Tashkent, Uzbekistan. 24 pp.
31. Azimov B., Mavlyanova R., Azimov B. 2016. Recommendations on sweet pepper production in Uzbekistan. Guide. Tashkent, Uzbekistan. 20 pp.
32. Massino I., Boboev F., Toderich K. 2016. Pearl millet (*Pennisetum typhoideum*) in Uzbekistan. «Fan va ta'lim poligraf bosmahonasi», Tashkent, Uzbekistan. 28 pp. [In Uzbek]
33. Toderich K., Popov V., Khujanazarov T., Mukimov T., Rabimov A., Bekchanov B., Rajabov T., Gismatullina L., Akinshina N. 2016. The use of artesian mineralized water for the arid pasture forage production and irrigated agriculture in the Kyzylkum. Tashkent, Uzbekistan. 16 pp. [In Russian]
34. Toderich K., Massino I., Popova V., Boboev F., Kalashnikov A., Zhapal R., Bayzakov A., Kalashnikov P., Zheksembekova M. 2016. Practice Guidelines for pearl millet cultivation on marginal lands of Central Asia. Tashkent, Uzbekistan. 13 pp. [In Russian]
35. Toderich K., Massino I., Popova V., Khujanazarov T., Ismail Sh., Boboev H., Mukimov T., Zhapaev R., Shaumarov M. 2016. Experience and best practices of Biosaline Agriculture on saline soils in Central Asia and Caucasus. Tashkent, Uzbekistan. 35 pp. [In Russian]

## Proceedings:

36. Abugalieva A., Babkenov A., Morgounov A., Zelenskiy Y., Penya J. Grain quality genetic potential and its realization in spring bread wheat varieties of the A. Barayev ARI's selection at KASIB Network//Proceedings of the International Conference: Crops Farming and Breeding at the Present Stage. The 60<sup>th</sup> Anniversary of ARI of Grain Farming named after Barayev A. Shortandy, Kazakhstan. 9-10 August 2016. v.2, pp. 203-216
37. Akhmetova A., Gulyayeva E. Studies of Kazakhstani populations of the wheat leaf rust//Proceedings of the International Conference: Crops Farming and Breeding at the Present Stage. The 60<sup>th</sup> Anniversary of ARI of Grain Farming named after Barayev A. Shortandy, Kazakhstan. 9-10 August 2016. v.2, pp. 363-367
38. Anarbekov O., Wichelns D., Akramov I. Assessing the Financial and Economic Viability of Water User Associations and Canal Management Organizations in Fergana Valley countries of Central Asia//IAAE Inter-Conference Symposium: Agricultural Transitions along the Silk Road: Restructuring, Resources and Trade in the Central Asia Region. 4-6 April 2016. Almaty, Kazakhstan
39. Aralova D., Kariyeva J., Toderich K. Environmental resilience of rangeland ecosystems: Assessing climate-driven land degradation in arid and semi-arid zones of Central Asia//The X<sup>th</sup> International Rangeland Congress. 16-22 July 2016. Saskatchewan, Canada
40. Belan I., Rosseyeva L., Shepelev S., Rosseyev V., Meshkova L., Lozhnikova L., Blokhina N., Zelenskiy Y. Bread spring wheat breeding for Ural, West Siberia and North Kazakhstan conditions//Proceedings of the International Conference: The 80<sup>th</sup> Anniversary of the Siberian ARI for Crop Production and Breeding. 2016. Novosibirsk, Russia. p.12
41. Bobokalonov F., Andre Ch., Legay S., Azimov R., Loo J., Gaisberger H., Kamolov N., Aaliev S., Kaparova E., Mukhsimov N., Butkov E. Preliminary assessment of genetic diversity of apricot populations in three Central Asian countries//Proceedings on International Scientific and Practical Conference: Methods of increasing the yield of apricot orchards and modern ways of processing its fruits. 9-10 July 2016. Bobojon Gafurov, Tajikistan. pp. 141-147
42. Braun H., Morgounov A., Akhmetova A., Zelenskiy Y., Zhapayev R., Urazaliev R., Berdagulov M., Chudinov V., Sereda G., Bekenova L., Tsygankov V., Esimbekova M., Aitymbetova K., Alshoraz A., Yushenko N., Akshalov K., Shelaeva T., Shamanin V., Belan V., Ganeev B., Karabayev M. Wheat improvement in Kazakhstan and West Siberia through effective use of breeding, genetic resources and agronomy//Proceedings of the International Conference: Crops Farming and Breeding at the Present Stage. The 60<sup>th</sup> Anniversary of the ARI of Grain Farming named after Barayev A. 9-10 August 2016. Shortandy, Kazakhstan. v.2, pp. 142-149
43. Gulyayeva E., Akhmetova A., Karabayev M., Kokhmetova A., Shaydayuk E., Aristova M., Galymbek K. Virulence and SSR-markers polymorphism of Kazakhstani populations of *Puccinia triticina* Eriks//Proceedings of the XIII<sup>th</sup> International Conference: Agricultural Sciences and Agro-Industrial System at the Turn of Century. 2016. Novosibirsk, Russia. pp. 14-19
44. Gulyayeva E., Akhmetova A., Shaydayuk E., Aristova M., Karabayev M. *Puccinia triticina* Erikss populations structure in bread and durum wheat//Proceedings of the International Conference: Crops Farming and Breeding at the Present Stage. The 60<sup>th</sup> Anniversary of the ARI of Grain Farming named after Barayev A. 9-10 August 2016. Shortandy, Kazakhstan. v.2, pp.309-313

45. Karabayev M., Morgounov A., Zelenskiy Y., Akhmetova A., Zhapayev R., Shamanin V., Belan I., Braun H. Increase efficiency of plant genetic resources, breeding and agro-technologies for food security and climate change in Kazakhstan and Siberia//Proceedings of the International Conference: Crop Breeding for Resistance to Abiotic and Biotic Stressors. 19-21 July 2016. Omsk, Russia. pp. 67-74
46. Nazarkulov U., Rustamova I., Nishanov N. Introducing ecosystem service evaluation indicators in monitoring of irrigated agriculture in Uzbekistan (based on ELD Central Asia project activities)//ICAS - International Conference on Agricultural Statistics – VII. 26-28 October 2016. Rome
47. Nurbekov A., Bukhoriev T., Kholmatov A., Cicek H., Salem H., Kassam A. Legume-cereal mixtures under no-till and conventional tillage agriculture in Tajikistan//International Conference on Conservation Agriculture and Land Use. 31 May-2 June 2016. Budapest, Hungary
48. Nurbekov A., Kassam A., Musaev A., Sydyk D., Ziyadullaev Z., Muminjanov H. No-till winter wheat cultivation in the irrigated conditions Central Asia and the Caucasus//International Conference on Conservation Agriculture and Land Use. 31 May-2 June 2016. Budapest, Hungary
49. Popova V., Toderich K., Bobokulov N., Rafiev B., Kalashnikov P., Zhapayev R. Improvement of the chemical composition and nutritional value of forage pearl millet on low-productivity lands of Central Asia//Proceedings of the 2<sup>nd</sup> International Conference: Scientific Support as a Factor of Sustainable Development of Water Management. 24-26 June 2016. Taraz, Kazakhstan. pp. 73-77
50. Shamanin V., Morgounov A., Zelenskiy Y., Salina E., Likhenko I., Pototskaya I. Genepool of stem rust resistant bread wheat varieties from KASIB nurseries to use for breeding in West Siberia//Proceedings of the International Conference: The 80<sup>th</sup> Anniversary of the Siberian ARI for Crop Production and Breeding. 2016. Novosibirsk, Russia. p.65
51. Shuyskaya E., Lebedeva M., Kolesnikov A., Borisochkina T., Toderich K. The chemical composition of salts released by *Tamarix (Tamarix ramosissima)*, growing under different soil salinity//Proceedings of the Soil Institute named after Dokuchaev V.V. pp. 109-121 [In Russian]
52. Toderich K. 2016. Innovation Approaches for Conservation of Biodiversity//International Conference dedicated to the 80<sup>th</sup> Anniversary of the Institute of Botany. 2-4 October 2016. Baku, Azerbaijan
53. Toderich K., Khujanazarov T., Boboev H. Crop diversification and adaptation under climate change: New salt tolerant crops and modeling option for management optimization//Training workshop. 7-11 November 2016. Almaty Kazakhstan
54. Toderich K., Khujanazarov T., Ismail Sh. Rural Women Empowered with Knowledge to Improve Own Livelihoods under Saline Water and Soils Environments//Proceedings of the International Conference: "Innovation for Biodiversity Conservation". pp. 21-22
55. Toderich K. Desert-resource use and new management opportunities//International Workshop: The future management of grazing and degraded lands in a high-tech world and Farmer field day on promotion and seed production of dual-purpose crops. Delegate Handbook. Almaty, Kazakhstan. pp. 1-28
56. Toderich K. Principles of Seed Multiplication of Non-Conventional Crops under marginal Environments in Karakalpakstan//Farmer training on prospects for seed multiplication of food crops (Quinoa and Amaranthus) on marginal saline lands. 23-24 January 2016. Tashkent, Uzbekistan

57. Toderich K. Use of Non-Conventional Agricultural Water Resources to Strengthen Water and Food Security in Transboundary Watersheds of the Amu Darya River Basin//A pre-meeting to the AAAS Annual Meeting. 10 February 2016. Washington, DC, USA
58. Toderich K. Marginal Environments and sustainable Management in the Aral Sea basin//AAAS on Global Science and Technology Forum. 11 February 2016. Washington, DC, USA
59. Toderich K. New approaches in Soil salinity Management//Proceedings of the International Forum on Eurasian Food Security and Nutrition Network and Eurasian Soil Partnership. 29 February - 3 March 2016. Bishkek, Kyrgyzstan
60. Toderich K. 2016. Biosaline Agriculture Prospects with Reference to Central Asia and Caucasus: Overview ICBA-projects in CAC-region//Proceedings of the Regional Consultation Workshop on Enhancing Competitiveness, Increasing Trade and Economic Growth in Central Asia. 15 March 2016. Istanbul, Turkey
61. Turdieva M. 2016. Results of study of genetic diversity of pistachio and replenishment of its breeding genepool in Central Asia//Proceedings of Scientific and Practical Conference: Current status of pistachio cultivation in Uzbekistan and prospects of its development. 6 September 2016. Tashkent, Uzbekistan. pp. 84-88 [In Russian]
62. Turdieva M., Baymetov K., Kayimov A. 2016. Local diversity of fruit, nut trees and grapevine as basis of organic horticulture development in Uzbekistan//Proceedings of International Scientific Conference: The advantage of horticultural products of Uzbekistan. 12-16 July 2016. Tashkent, Uzbekistan. pp. 11-13 [In Russian with summary in English]
63. Zelenskiy Y., Abugalieva A., Belan I., Zykin V., Rosseyeva L., Morgounov A., Penya J. Quality of the Siberian ARI's bread spring wheat varieties in Kazakhstani reproductions of the KASIB Network//Proceedings of the International Conference: The 80th Anniversary of the Siberian ARI for Crop Production and Breeding". 2016. Novosibirsk, Russia. p.28
64. Zhapayev R., Toderich K., Popova V., Tautenov I., Umirzakov S., Bekzhanov S., Nurgaliev N., Nurzhanova Sh., Tajekeeva A., Nikishkov A., Iskandarova K., Akhmetova A., Zelenskiy Y., Karabayev M. Study of Sorghum potential for feed production in unfavorable soil-climatic conditions of Priaralie, West and Central Kazakhstan//Proceedings of the International Conference: Forage Resources System on the Basis of Intensification of Crops Production and Natural Meadowlands, 27-28 May 2016. Almalybak, Kazakhstan. pp.356-361

## Abstracts:

65. Aralova D., Toderich K., Gafurov D. Impacts of climate anomalies on the vegetation patterns in the arid and semi-arid zones of Uzbekistan. LPS - 2016 under European Space Agency. Prague, Czech Republic
66. Azimjon A., Mamadrahimov A., Soliev B., Toderich K., Rao N. Determination of squalling content in quinoa seed oils grown under harsh environmental condition in Central Asia. Abstract Book International Quinoa conference: Quinoa for future Food and Nutrition Security in Marginal Environments. 2016. p. 67
67. Biradar C., Löw F. Remote sensing based assessment of the dynamics of crop productivity and spatial production pattern across the Fergana Valley, Central Asia. Central Asia Climate Smart Agriculture Workshop. 12-14 July 2016. Bishkek, Kyrgyzstan

68. Bogachan B., Biradar C., Haddad M., Tulkun Y., Akramkhanov A., Sharma R. C., Aziz N. Assessment of wheat yield gap in Central Asia: Case studies from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. Central Asia Climate Smart Agriculture Workshop. 12-14 July 2016
69. Le B., Biradar C., Thomas R., Zucca C., Bonaiuti E. Socio-ecological Context Typology to Support Targeting and Upscaling of Sustainable Land Management Practices in Diverse Global Drylands. In: The 8th International Congress on Environmental Modelling and Software. 10-14 July 2016. Toulouse, France
70. Löw, F., Waldner F., Dubovyk O., Akramkhanov A., Lamers J., Prishchepov A., Biradar C. Mapping post-Soviet abandoned cropland in Central Asia using satellite earth observation. Central Asia Climate Smart Agriculture Workshop. 12-14 July 2016. Bishkek, Kyrgyzstan
71. Niyazmetov D., Akramkhanov A., Le Q., Ibragimov T. Identification of rural livelihood types and modeling livelihood strategies in Aral Sea Region, Uzbekistan. IAAE Inter-Conference Symposium, Agricultural Transitions along the Silk Road Restructuring, Resources and Trade in the Central Asia Region. 4-6 April 2016. Almaty, Kazakhstan
72. Nurbekov A., Ziyadullayev Z., Sydyk D., Asoev N., Yatimov B., Kholmatov A. Effect of tillage methods on productivity of double cropped mungbean in the irrigated conditions of Central Asia. International Conference on Pulses. 18-20 April 2016. Marrakesh, Morocco. p. 137
73. Sultanova Z. , Abdullaev A , Atabaeva H., Toderich K., Boboev H. Studies of the Effect of Marginal Growing Conditions (Karakalpakistan) on Grain and Forage Yield of Quinoa (*Chenopodium quinoa*). Abstract Book. International Quinoa conference: Quinoa for future Food and Nutrition Security in Marginal Environments. 2016. p. 42
74. Toderich K., Nanduri R., Ismail Sh., Boboev H. Potential of non-traditional crops for improving food security in marginal Environments of Uzbekistan. Abstract Book. International Quinoa conference: Quinoa for future Food and Nutrition Security in Marginal Environments. 2016. p. 28
75. Zhapaev R., Omarova N., Nikishkov A., Yushenko D., Iskandarova K., Paramonova I., Nekrasova N., Toderich K., Akhmetova A., Zelenskiy Y., Karabaev M. Sorghum Yield Potential Assessment in Different Agroecological Zones of Kazakhstan (for livestock Feed and Fuel). Global climate change and biodiversity, Second International Congress. 2016. Almaty, Kazakhstan. pp. 16-219

### Project reports:

76. Anarbekov O., Akramov I., Gaipnazarov N. 2016. Review of the implementation of water saving technologies in agriculture of the Republic of Uzbekistan. IWMI Report within framework of EU-GIZ project
77. Djumaboev K., Holmatov B., Hamidov A., Anarbekov O. 2016. Overview of Water Related Programs in Uzbekistan. IWMI analytical report within framework of EU-GIZ project
78. Djumaboev K., Hamidov A., Anarbekov O., Gafurov Z. 2016. Collective Action in the Irrigation Sector of Uzbekistan: A case Study of Water Consumers Associations (WCAs) in the Karshi Steppe of Uzbekistan. IWMI Research report within framework of USAID PEER Cycle 4
79. Mavlyanova R., Nishanov N. Project report. W3 Russian Funding Project: Increase year-round (greenhouse and open field) vegetable production and market supply that lead to improved diets of the local population

80. Nishanov N. Regional report on ELD in Central Asia and five country reports for all Central Asian states on Economics of Land Degradation prepared under ELD in Central Asia project

### **Presentations:**

81. Anarbekov O. Overview of IWMI activities in Central Asia and IWMI's role in GIZ's Transboundary Water Programme in Turkmenistan. Presentation for the Ministry of Agriculture and Water Economy of Turkmenistan. Turkmengiprovodkhoz. 25 November 2016. Ashgabat, Turkmenistan
82. Anarbekov O. Overview of IWMI-CA's research and its application to mitigate impact of climate change. Presentation on innovations for improving drylands in Central Asia collaborative research and capacity development program. 14-15 December 2016. Tashkent, Uzbekistan
83. Djumaboev K. Water Management under uncertainty, climate change and transboundary context: A case study of the Shahimardansay small transboundary river in Fergana Valley of Central Asia. Concept paper for the Central Asian Workshop: Persistence and Change of Institutions in Natural Resources Management in Central Asian context. Workshop on Institutional Analysis of Socio-Ecological Systems. Humboldt University. 26 - 29 January 2016. Berlin, Germany
84. Djumaboev K. Overview of IWMI's research and Application of IWMI-CA experience in Climate Change Adaptation in Central Asia. National seminar on Climate Change Adaptation in Central Asia. Global Water Partnership. 20 May 2016. Tashkent, Uzbekistan
85. Djumaboev K., Gafurov Z. Mitigating Competition for Water by Improving Water Use Efficiency in Amu Darya River Basin. Workshop water related research collaboration between IWMI and USDA-ARS. 2-3 November 2016. Fresno, California, USA
86. Eltazarov S. Introduction to QGIS. Presentation for the Ministry of Agriculture and Water Economy of Turkmenistan. Turkmengiprovodkhoz. 25 November 2016. Ashgabat, Turkmenistan
87. Gafurov Z. Overview of IWMI research in Central Asia and future prospects for collaboration. Presentation: Workshop for the future of water related research collaboration between the EU and Central Asia. 11-12 April 2016. Athens
88. Gafurov Z., Eltazarov S. Training on Application of GIS in the field of water resources, drainage and land use management using QGIS software. Training for the Ministry of Agriculture and Water Economy of Turkmenistan. Turkmengiprovodkhoz. 13-23 December 2016. Ashgabat, Turkmenistan

### **Monographs:**

89. Boboev H., Higano Y., Toderich K. 2016. Conservation Agriculture Technologies and Policies in Uzbekistan. Springer Japan Book Series
90. Butnik A., Toderich K., Matyunina T., Japakova U., Yusupova D. 2016. Manual on fruit morphology and biology of seed germination of desert plants of Central Asia. Bilik Print Publisher. Tashkent, Uzbekistan



## Policy briefs:

- ❖ Addressing land degradation in Central Asia: challenges and opportunities
- ❖ Enhancing Agricultural Advisory Services in Central Asia for Sustainable Land Management
- ❖ Five policy briefs on ELD in Central Asia for all Central Asian countries prepared under ELD in Central Asia project [in English and Russian languages]
- ❖ Impacts of climate change on Central Asian agriculture
- ❖ Repositioning agricultural innovation systems in post-Soviet Central Asia

## Web-tools:

- ❖ Biradar C., et al., 2016. Geoinformatics applications for agro-ecosystem management in Central Asia and Fergana Valley. A Web-GIS application <http://geoagro.icarda.org/ca/>

## Videos:

- ❖ CACILM II ([www.cacilm.org](http://www.cacilm.org)) Indigo: natural paint from degraded lands: <https://youtu.be/qLMnMRc2PUk>

## Defended thesis within project activities:

- ❖ Adkhamov U. Bachelor diploma. Modeling of cotton yields and soil moisture in the condition of drip and furrow irrigation. Supervisors: Gafurov Z. Tashkent Institute of Irrigation and Melioration. 2016
- ❖ Akramov I. Master thesis. Water footprint for agricultural development in Central Asia: Case study of cotton production in Fergana province. Supervisors: Anarbekov O., Jumaboyev K., Michael Walther. Kazakh-German University. Almaty, Kazakhstan. 2016
- ❖ Khojaev Sh. Master thesis. Implementation of «Smart-Water» technology in the Chirchik River Basin management. Supervisors: Anarbekov O., Gafurov Z., Falk-Juri Knauff. Kazakh-German University. Almaty, Kazakhstan. 2016
- ❖ Makhmudova M. Impact of climate change to agricultural water supply in the Podshoota River Basin. Supervisors: Karimov. A., Gafurov Z. Tashkent Institute of Irrigation and Melioration. 2016