

Inland fisheries livelihoods in Central Asia

Policy interventions and opportunities



Cover photographs:

Left: Harvesting of trout at the Forel Farm, Tajikistan, 2008; Courtesy of R. van Anrooy

Right: Local fisher, fishing from the World Bank funded SYNAS dam in Kazakhstan (North Aral Sea), 2008; Courtesy of A. Thorpe.

Inland fisheries livelihoods in Central Asia

Policy interventions and opportunities

FAO
FISHERIES AND
AQUACULTURE
TECHNICAL
PAPER

526

by

Andy Thorpe

University of Portsmouth

Portsmouth, United Kingdom of Great Britain and Northern Ireland

Raymon van Anrooy

Fishery Officer

FAO Subregional Office for Central Asia

Ankara, Turkey

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned. The views expressed in this information product are those of the author(s) and do not necessarily reflect the views of FAO.

ISBN 978-92-5-106285-2

All rights reserved. Reproduction and dissemination of material in this information product for educational or other non-commercial purposes are authorized without any prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of material in this information product for resale or other commercial purposes is prohibited without written permission of the copyright holders. Applications for such permission should be addressed to:

Chief
Electronic Publishing Policy and Support Branch
Communication Division
FAO
Viale delle Terme di Caracalla, 00153 Rome, Italy
or by e-mail to:
copyright@fao.org

© FAO 2009

Preparation of this document

The Central Asian region, including the Republic of Kazakhstan, the Republic of Tajikistan, the Kyrgyz Republic, the Republic of Uzbekistan and Turkmenistan, has experienced three profound events that have had notable reverberations within the fisheries sector over the last few decades.

- 1) The ecological crisis precipitated by the *shrinking of the Aral Sea* has devastated the local ecosystem, destroyed a vibrant fishery¹ – with the loss of 24 indigenous species of fish, and undermined the health and livelihoods of more than three million people.
- 2) Commercial *overfishing of sturgeon from the Caspian Sea* (bordering Kazakhstan and Turkmenistan) saw landings collapse and led the Convention on International Trade in Endangered Species (CITES) to prohibit sturgeon exports from the region in 2006.
- 3) *The demise of the former Union of the Soviet Socialist Republics (USSR)* saw the fragmentation of the previously “effective” centralized system of managing the region’s 55 reservoirs, with the consequent uncontrolled expansion of fishing activity resulting in fish “becoming less available to the broader communities” (Petr *et al.*, 2004).

Somewhat surprisingly, the impact of these changes on the structure of fishing and fish farming communities and the role of fish in household livelihood strategies has largely gone unrecognized. To date, there exists only minimal recognition of the nature of fisher livelihoods in the inland fisheries of Central Asia and the coping strategies employed at the household and community level to deal with systemic shocks such as the Aral and Caspian stock collapses and the fisheries decentralization alluded to above. The human dimensions of fisheries in Central Asia are largely overlooked in literature about fisheries of the region.

This document is the result of a synergetic effort in 2008 of the Food and Agriculture Organization of the United Nations (FAO) and the University of Portsmouth, United Kingdom of Great Britain and Northern Ireland, in collaboration with some key fisheries-sector stakeholders in Central Asia, from both research and management fields. It intends to increase understanding of, and contribute to, reducing the gap in information on effective livelihood-supporting policy interventions in the inland fisheries of Central Asia.

¹ The Aral Sea fishery regularly produced over 50 000 tonnes of fish during its heyday in the 1960s, providing employment for 60 000 workers.

Abstract

This technical paper presents the findings of a study on inland fisheries livelihoods in Central Asia. It discusses current policies and potential livelihood-enhancing policy interventions. The study was conducted in 2008 under a partnership between Portsmouth University, the United Kingdom of Great Britain and Northern Ireland, and the Food and Agriculture Organization of the United Nations (FAO). The paper examines the evolution of the Central Asian fisheries sector, showing how it was one of – if not the most – acutely affected sectors by the deterioration in the economic environment after the collapse of the former Union of the Soviet Socialist Republics in 1991. Examples are given of livelihood or coping strategies that have evolved for those persons who currently derive an income from the sector. Three distinct groupings are highlighted in the examples presented: the Kazakh “fisher brigades” based on the North Aral Sea, the “community” fishers of Kyrgyz Republic and the pond culturalists of the Republic of Tajikistan. The livelihood strategies of each group and the particular constraints each group faces are documented. A concluding chapter identifies the pre-requisites for more effective livelihood-supporting policy interventions within the fisheries sphere across the Central Asian republics.

Contents

Preparation of this document	iii
Abstract	iv
Acknowledgements	vii
Acronyms and abbreviations	viii
1. Introduction	1
2. Poverty, well-being and poverty reduction strategy papers (PRSPs) in the Central Asian republics	3
Kazakhstan	5
Kyrgyzstan	7
Tajikistan	7
Turkmenistan	9
Uzbekistan	9
3. The evolution of Central Asia's inland fisheries	11
Fisheries in Kazakhstan	12
Fisheries in Kyrgyzstan	15
Fisheries in Tajikistan	17
Fisheries in Turkmenistan	20
Fisheries in Uzbekistan	22
Commonalities among fisheries of the Central Asian Region	25
Reactivation of the fisheries sector	25
4. Fisher livelihoods and well-being in Central Asia	27
The "fisher brigades" of the north (little) Aral sea	32
The "community" fishers of Kyrgyzstan	38
The "Dekhan pond fishers" of Tajikistan	41
5. Conclusions	47
Increasing government attention to the fisheries sector	47
A holistic approach to determining livelihood-supporting policy interventions	48
Actions needed at the regional level	49
Actions needed at the national level	49
References	53
Tables	
1. Central Asia: poverty and well-being at independence	4
2. Central Asia: trends in poverty and well-being	4
3. Poverty in Uzbekistan by oblast, 2005	10
4. Fish production in the Commonwealth of Independent States (in tonnes)	11
5. The livelihoods approach framework	29
6. Number and location of brigades on the North Aral Sea (NAS)	36
7. Fish prices and margins on the North Aral Sea (NAS), 2004	37

8. Stocking and capture data at reservoirs managed by the Hunters and Fishers Association in Chui-Bishkek, 1999–2007	40
9. The emergence of dekhan farms, 2002–2006	42

Figures

1. Economic performance of the Central Asian economies, 1992–2007	5
3. Fish production in Kazakhstan, 1989–2006	13
2. Recreational fishing near Almaty, Kazakhstan, 2008	13
5. Fisheries production in Kyrgyzstan 1989–2006	16
4. A fish retailer at the Osh market in Bishkek, Kyrgyzstan, 2008	16
6. Harvest from an extensively used fish pond in Tajikistan	18
7. Fish production in Tajikistan, 1989–2006	19
8. The remains of one of the largest Soviet-era hatcheries in Central Asia, located in Tajikistan	19
9. Fish production in Turkmenistan, 1989–2006	21
10. Fish retailers with love for their product at one of the markets in Ashgabat, Turkmenistan	22
11. Fish sales at Chinaz wholesale market in Uzbekistan	23
12. Fish production in Uzbekistan, 1989–2006	24
13. Soviet-era incubators at the largest fish hatchery in Uzbekistan	25
14. Nurek reservoir in Tajikistan where aquaculture development is being planned	30
15. The Central Asian livelihoods pentagon	31
16. Fingerling culture ponds near Almaty for restocking in various lakes and reservoirs in Kazakhstan	34
17. A newly established agricultural training centre with demonstration fish ponds in Tajikistan	44
18. Participants at the regional intergovernmental meeting to initiate the establishment of a Central Asian fisheries organization, Dushanbe, Tajikistan, November 2008	48

Boxes

1. The Millennium Development Goals (MDGs) and the Central Asian republics	6
2. Livelihood analysis of the social, economic, institutional and environmental domains	28
3. The local NGO Aral Tenizi	35
4. The hatchery and feeding ponds in Kuybyshev	45

Acknowledgements

The authors hereby acknowledge the important contribution of the fishers, aquaculturists, fish processors, fishery-sector policy-makers and fishery academics and researchers who provided the authors with information and advice. Specific thanks are due to Messrs Prikeev, Batimova and Makhambetova (Aral Tenizi, the Republic of Kazakhstan), Messrs Christensen and Bjerre (Levende Hav, Denmark), Messrs Gafurov and Hujiev (Mohiparvar, the Republic of Tajikistan), Khaitov (Tajik Agrarian University, the Republic of Tajikistan), Kholov (A. Djami, the Republic of Tajikistan), Messrs Kiryanov and Shmidt (the Hunters and Fishers Association, the Kyrgyz Republic), Ms Kozhombaeva, Ms Sarieva and Mr Baitemirov (Department of Fisheries, the Kyrgyz Republic) for their support to the various field visits in the Republic of Kazakhstan, the Republic of Tajikistan and the Kyrgyz Republic and for the information provided.

The authors further gratefully acknowledge the collaboration in the study and the publication of the findings from a number of staff of the Food and Agriculture Organization (FAO), including Ms Balkhova (FAO National Correspondent in the Republic of Tajikistan), Mr Tsukasa Kimoto (FAO Emergency Coordinator in the Republic of Tajikistan), Mr Rysbek Apasov (FAO National Correspondent in the Kyrgyz Republic), Mr Mustapha Sinaceur and Ms Cana Salur (FAO Subregional Office for Central Asia), Ms Françoise Schatto and Ms Tina Farmer (FAO Fisheries and Aquaculture Department).

Acronyms and abbreviations

CIS	Commonwealth of Independent States
CITES	Convention on International Trade in Endangered Species
DFID	Department for International Development
DRD	Direct Rule Districts (Republic of Tajikistan)
DSLS	Danish Society for a Living Sea
EIFAC	European Inland Fisheries Advisory Commission
FAO	Food and Agriculture Organization of the United Nations
FSS	Former Soviet States
GDP	gross domestic product
GEF	Global Environment Facility
HDI	human development index
HFA	Hunters and Fishers Association (Kyrgyz Republic)
ICWC	Interstate Coordination Water Commission
IMF	International Monetary Fund
IUU	illegal, unreported and unregulated
KR	Kyrgyz Republic
MCS	monitoring, control and surveillance
MDG	Millennium Development Goal
NAS	North Aral Sea (Republic of Kazakhstan part)
NGO	Non-governmental Organization
PRSP	Poverty Reduction Strategy Paper
RoK	Republic of Kazakhstan
RoT	Republic of Tajikistan
RoU	Republic of Uzbekistan
SAS	South Aral Sea (Republic of Uzbekistan part)
SEC	Subregional Office for Central Asia (FAO)
TAC	total allowable catch
UNDAF	United Nations Development Assistance Frameworks
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
The former USSR	the former Union of the Soviet Socialist Republics
WIS	Welfare Improvement Strategy of Uzbekistan 2008–2010
WFP	World Food Programme