

POPs, Hazardous Waste, and Gender-Dimensions in Kyrgyzstan

Initial finding of the scoping study on Gender,
Chemicals and Waste for the BRS secretariat

Geneva, 9 May 2019

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Which means that all the activities that we now implement have to have gender featured in them.

Scoping Study Kyrgyzstan

The scoping study aimed to understand three gender dimensions:

- How are **women and men differently impacted** in their health by hazardous chemicals and waste?
- How do women and men's **occupations and the roles at home and at work** influence exposure to hazardous chemicals and waste?
- What **best practices** with women and men's leadership exist to substitute and eliminate hazardous chemicals and waste?

METHODOLOGY

As part of the scoping study were organized: desk research study, stakeholder dialogue meeting and site visits and interviews

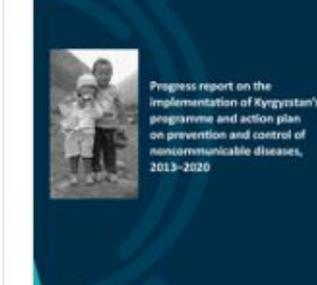
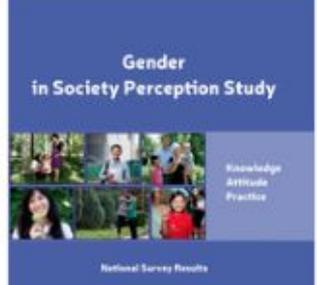
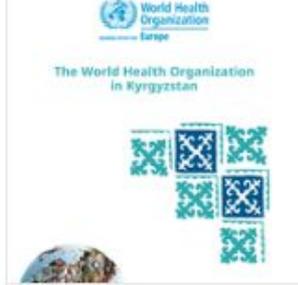
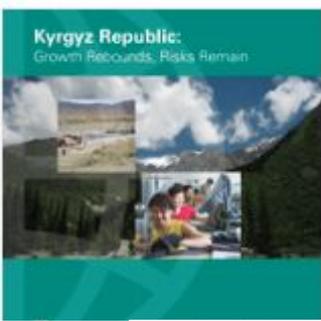
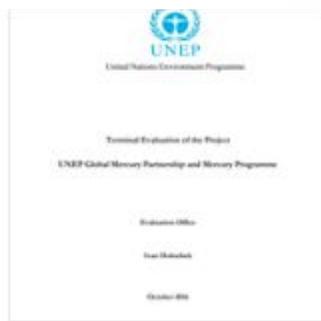
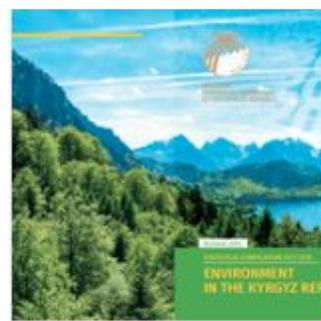
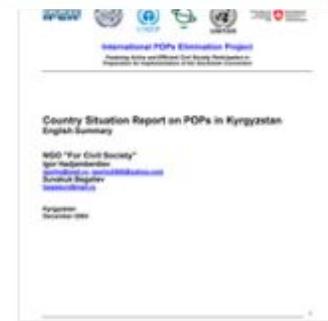
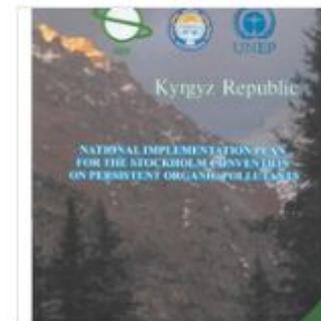
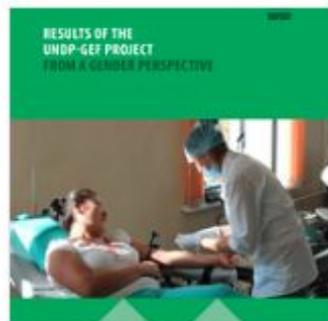
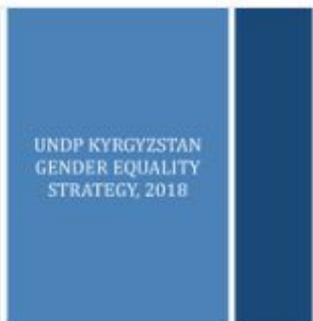
Visits and interviews



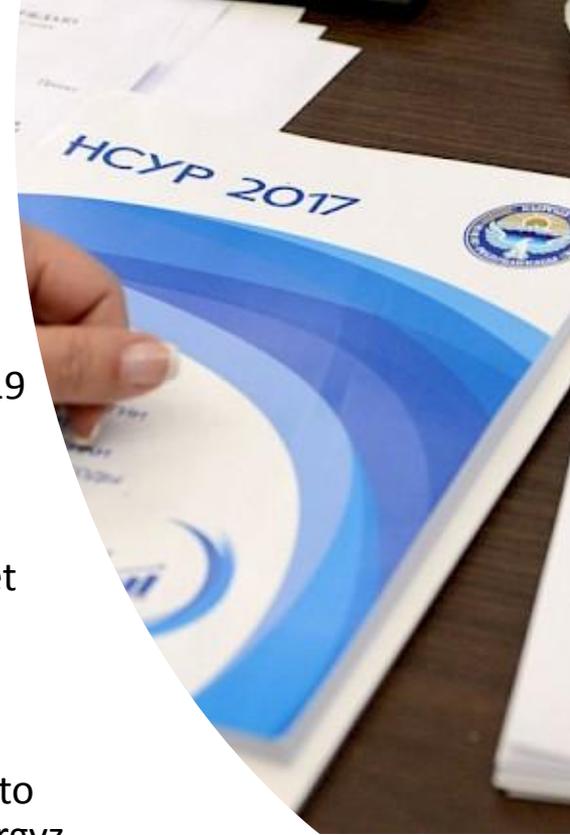
- leading scientists and scientific institutions
- national authorities responsible for chemicals, waste, labour and social affairs
- UN representatives working in the country
- a recycling area for mixed waste
- the largest waste dump of the country and informal waste scavengers
- village councillors near the waste dump site
- and a plastic recycling company
- a wastewater plant
- the asbestos-cement factory town



Desk Research Study

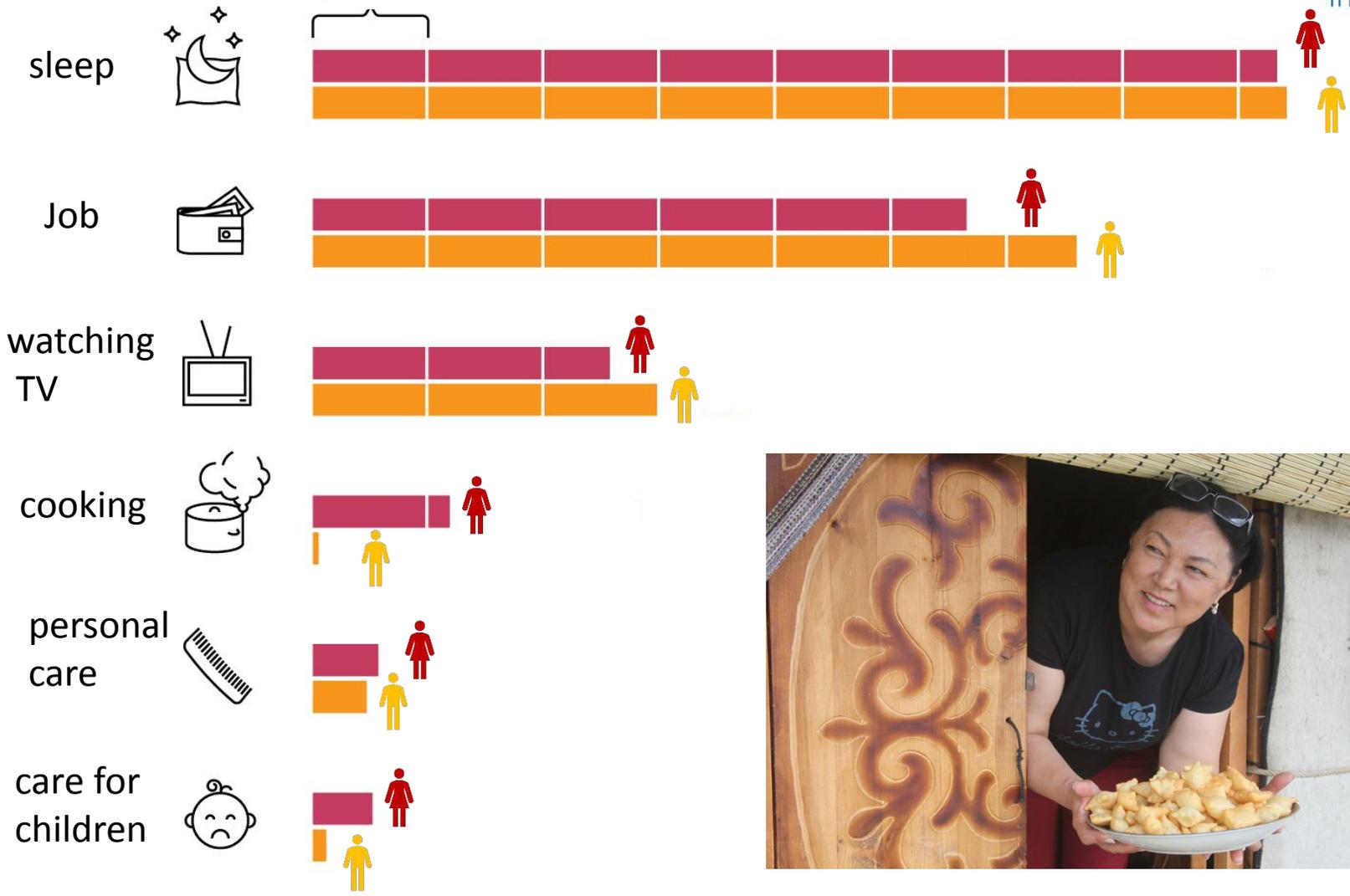


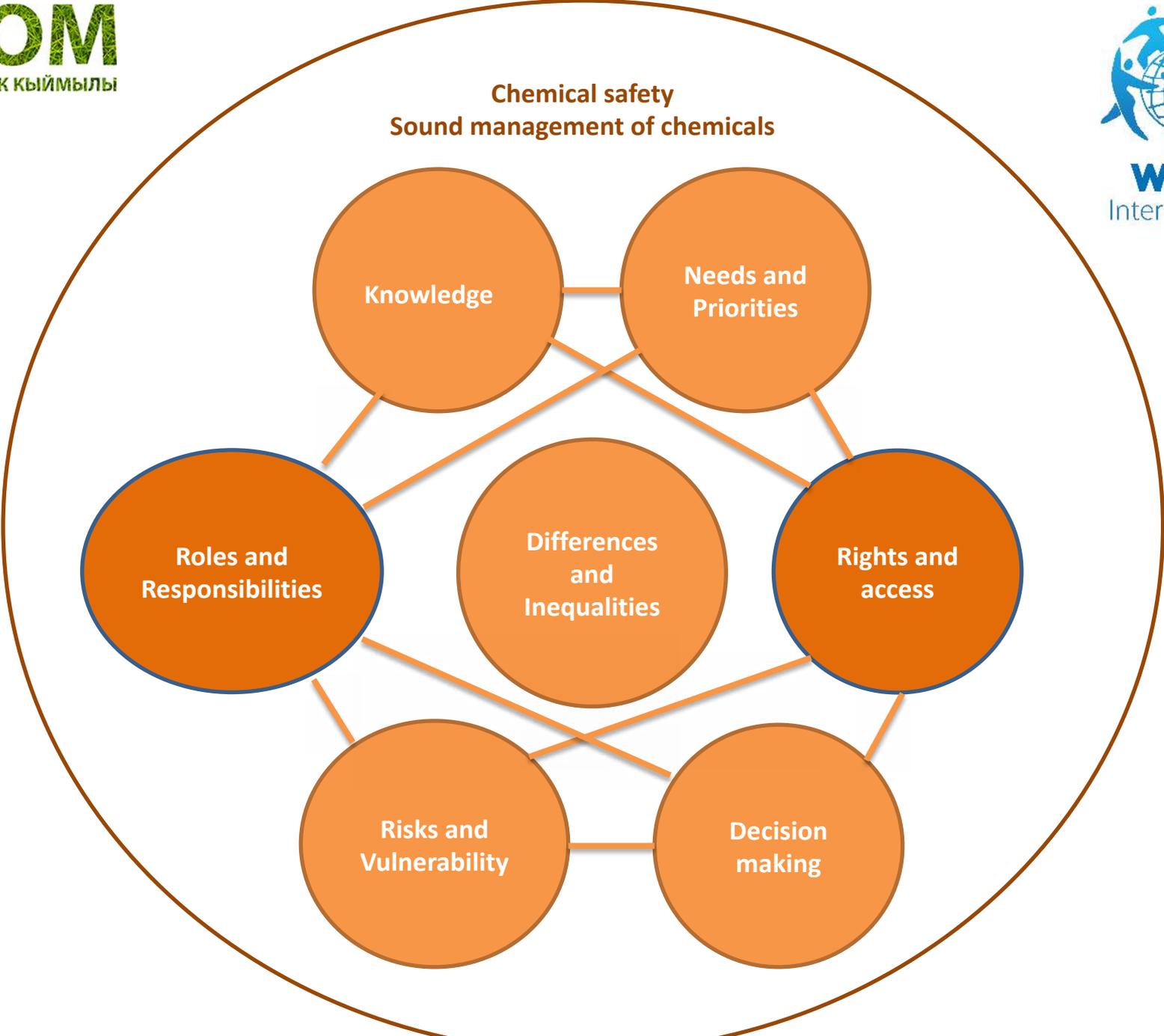
National strategic frameworks related to Gender & Chemicals, Waste



- **National Implementation Plan** of Stockholm Convention 2006, 2017-2019 годы (на рассмотрении Правительства), lacks analysis and **does not have any gender-responsive measures**. And is not yet approved by government.
- "The concept of environmental safety of the Kyrgyz Republic" and the "Set of measures to ensure the environmental safety of the Kyrgyz Republic, 2015-2020 - **do not have any gender-responsive measures**
- The Government program on the sound management of chemicals in the Kyrgyz Republic for 2015-2017 – **no gender issues reflected**
- National Strategy of the Kyrgyz Republic on Achieving Gender Equality up to 2020 and the National Action Plan on Achieving Gender Equality in the Kyrgyz Republic on June 27, 2012 No. 443– indirectly: training in agro-technologies, introduction of gender-sensitive principles in personnel policy in state and municipal service, monitoring and reporting formats (**but not all ministries and agencies actively use the gender equality strategy and reporting in their work**)
- The Law of the Kyrgyz Republic “On State Guarantees of Equal Rights and Equal Opportunities for Men and Women”, stipulates the integration of **a gender approach into state, regional and local development programs and strategies**. The same gender should not predominate in the **staffing structure** of state and local government employees. And land rights are equally protected for persons of different sexes.

Time allocation for men and women, per day





Health impacts of chemicals/pesticides in agriculture

Indicator	Clean area	Cotton area
Births	726	10029
Miscarriage	8	275
Percentage	1,1	2,74%
Missed abortion	0	73
Percentage	0	0,73%
Antenatal deaths	0	43
Percentage	0	0%
Stillborn	0	36
Percentage	0	0,36%

Conducted studies of the effects of POPs on human health in Kyrgyzstan

“POPs content in environment and the human body” - Toychuev R.M., Khametova M.Sh., Rakhmatillaev A., Madykova Zh.A., Payzildaev T.R., Institute of Medical Problems of the South Branch of the National Academy of Sciences of the Kyrgyz Republic, 2015.

6.2. Pregnancy and issues in pesticide area (R.Toichiev)

Toichuev R.M. The effect of organo chlorine pesticide concentrations in placenta on pregnancy and labor – The same volume, p.159-161. Toichuev R.M., T.R. Payzildaev & D.S. Mirzakulov The problems of organ chlorine pesticide pollution in obstetrics, pediatrics and andrology - The same volume, p.162-164.

Gender disaggregated health data for cotton growing area

Indicator	Clean area	Cotton area
Cervical erosion	5	255
Percentage	0,69%	2,54%
Extra genital diseases	87	2541
Percentage	1,20%	25,33%
Anemia	354	3021
Percentage	48,76%	30,12%
Diseases of the genitourinary system	23	648
Percentage	3,17%	6,46%
Kidneys diseases	20	370
Percentage	2,75%	3,69%

6.3. Women diseases in pesticides area

Toichuev R.M., D.S. Mirzakulov & T.R Payzildaev The effect of organochlorine pesticides residues on the incidence of primary male infertile - 13Th Int HCH & Pesticides Forum, Zaragoza Nov 2015, p.156-158. Volume in PDF 21,5 MB.

Body Burden Accumulation

- The percentage of placentas positive for organo-chlorine pesticide (OCPs) strongly depended on the **residential area** of the women surveyed.
- A high percentage of placentas with OCPs was found in pregnant women living in **cotton-growing regions** (65.6%)
- The highest percentage of OCP-positive placentas, 98.8%, in pregnant women living near **pesticide dump sites**, former **pesticide storehouses**, and **agro airstrips** that were in use until the 1990s.
- In contrast, OCPs were detected in only 2.7% of the placentas from pregnant women **living in other** areas

Obsolete pesticides disposal sites and clean up



<https://www.semanticscholar.org/paper/Assessment-and-review-of-organochlorine-pesticide-Toichuev-Zhilova/9fdc8033783b4017e7a92a68b33d5e5cf99d5c5a>

Gender-disaggregated data on pesticide use

Work with pesticides

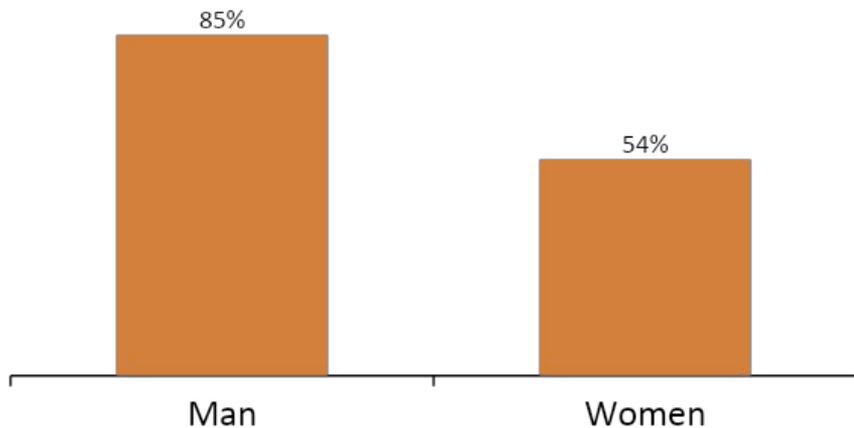
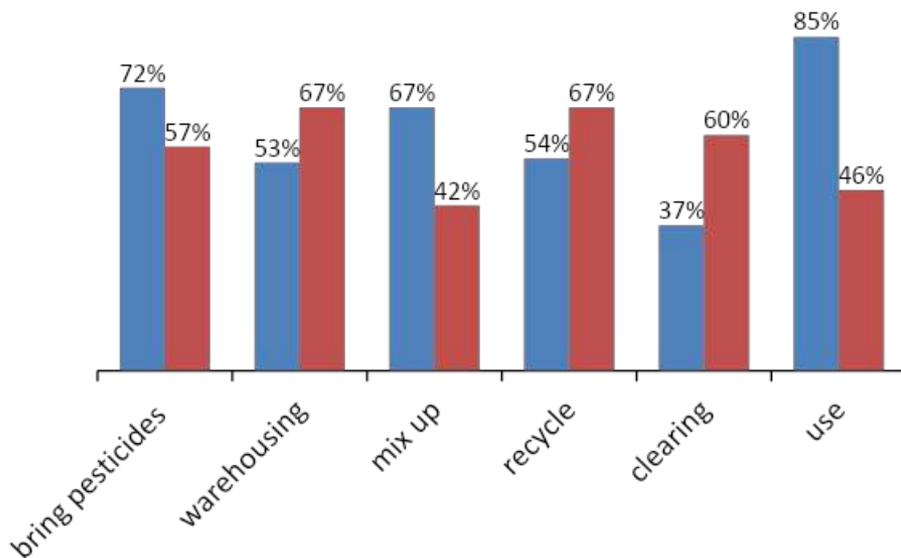


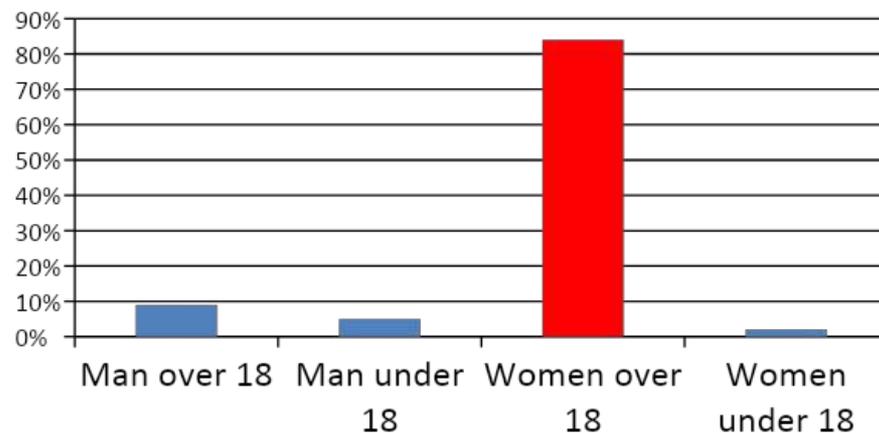
Фото: <https://kaktus.media>

Task by gender

■ мужчины ■ женщины



Washing contaminated clothing



Pesticide Dispatch Symptom Reports

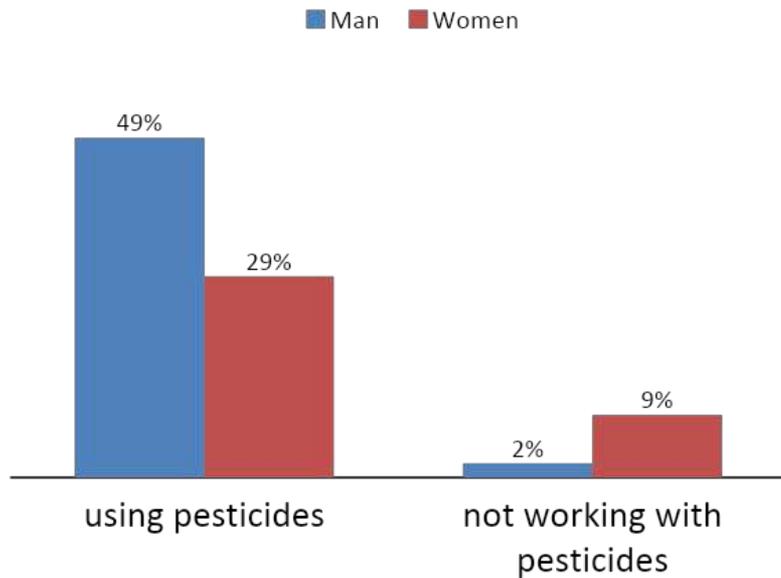
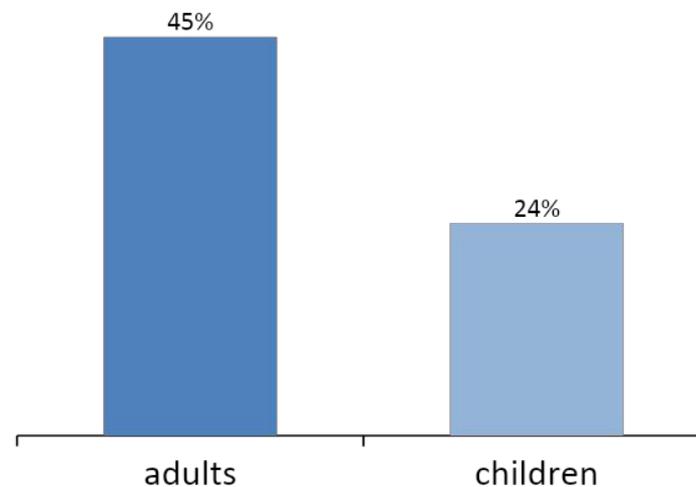


Photo: by Kirilenko A.



Widespread use of unlabelled pesticides (Osh market)

Photos to come

Gender aspects Can be linked to:

- Awareness raising on health impacts on family, costs and burden of case
- Factual information on the marketing slogans used e.g. “this is great DDT”
- Understanding indirect contamination through storage, washing, playing of kids etc.

New POPs in Kyrgyzstan



Non-sticky trying pan



Water resistant fabric



Fire-resistant rug



Plastic products and waste

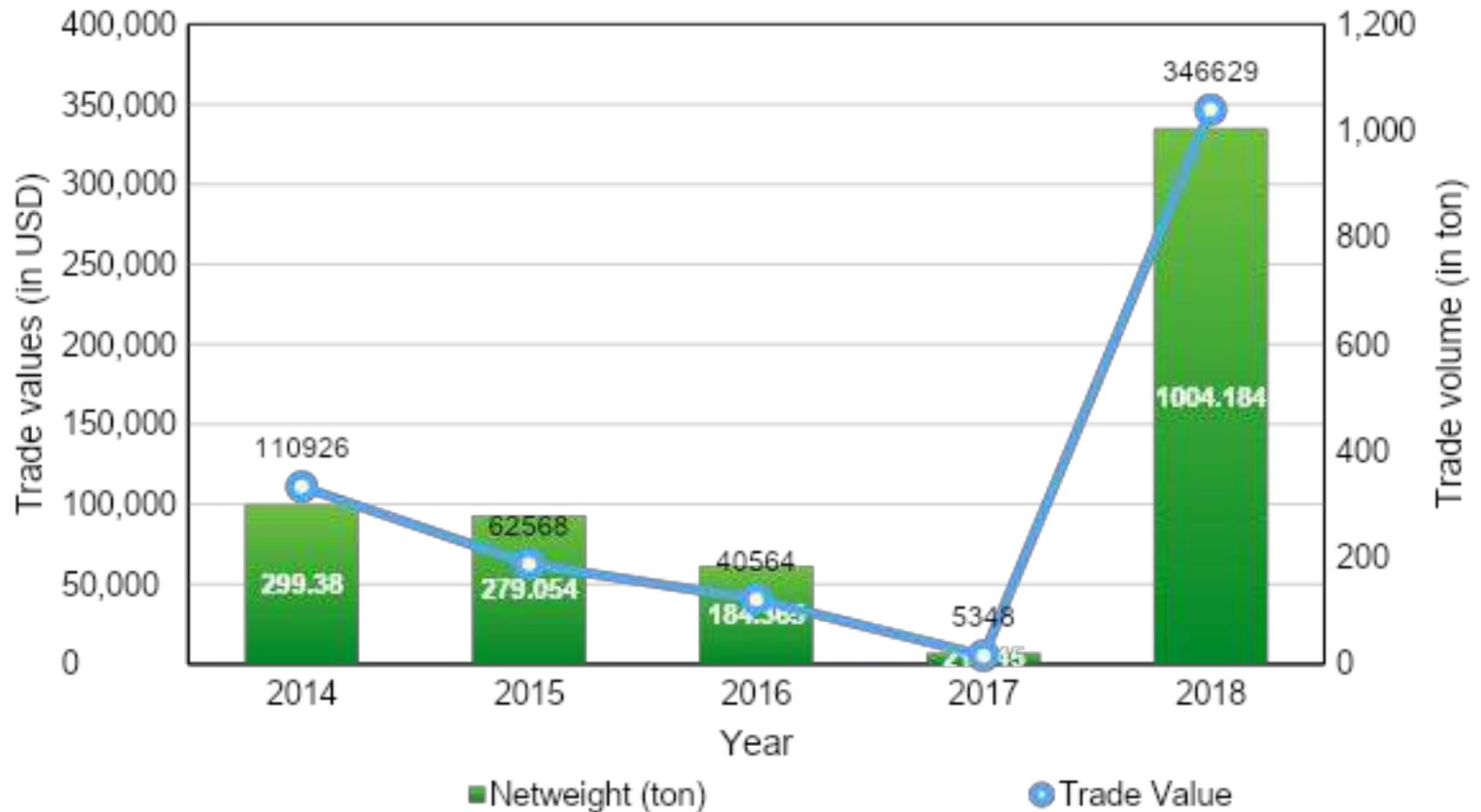


Food wrap



Electronics

Plastic scrap imported by Kyrgyzstan (as HS 3915) period of 2014-2018



* Source: UN Contrade database: <https://comtrade.un.org/data/> As reported by Kyrgyzstan

Gender dimensions of Waste and (new) POPs



The State Agency for Environmental Protection and Forestry discovered 299 unauthorized landfills in 2018 during the inventory of landfills in Kyrgyzstan



Dioxins and other POPs from waste

- Men, women and children are involved in sorting garbage in landfills (according to expert estimates women are around 60%)
- Food, plastic, metal, cardboard, glass are being collected
- No health studies have been conducted on the chemical cocktail of pollutants, waste workers are unaware of risks
- Landfills are a source of unintentional emission of POPs such as dioxins due to the on-going burning garbage
- Waste during collection is not sorted. Medical, electronic, household, food waste are dumped. Illegal practices.
- Toxics are spreading into water (fishing) and air (over nearby villages, over farm fields, all the way to Bishkek)



Toxic legacy: primary mercury mining and smelters

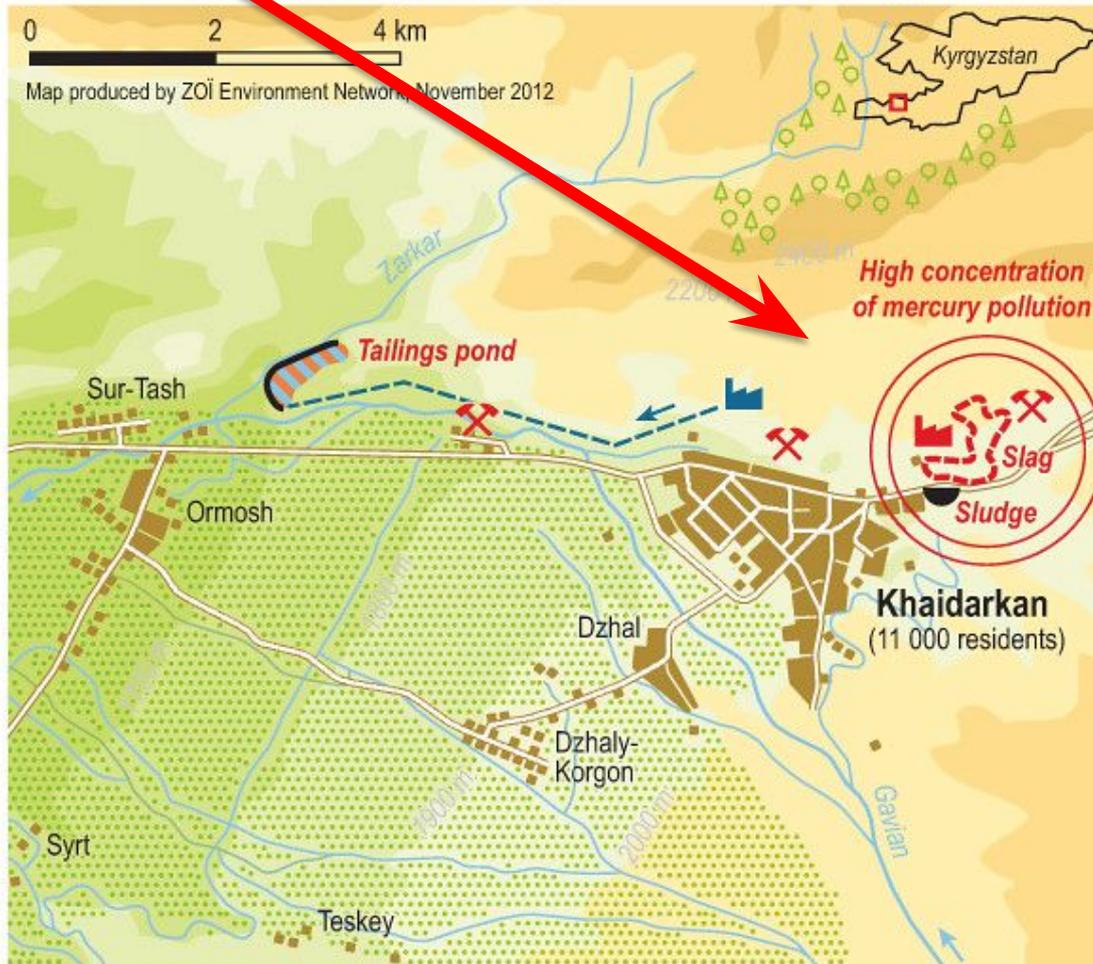
Legacy waste: Mercury smelting slag and mining waste (Khaldarkan, Kyrgyzstan)



Photo credit: Zoi Environment Network

NB: It appears that the mine is still open but production is going down. There is still artisanal small scale gold mining, but it is said today Cyanide is used, rather than mercury

Former mercury primary mining: Khadairkan



Mercury mining

- Mercury smelter
- Mercury mine

Other minerals mining

- Fluorspar processing factory
- Cropland



Source:

<http://aarhus.kg/en/news/information-on-the-survey-and-assessment-of-abandoned-mercury-production-facilities-and-information-campaign-in-the-charvay-ayil-okmotu-of-the-kadamzhai-district.html>

Chrysotile Asbestos



- KYZ still has an operating **asbestos-cement factory** in Kant
- **Low-income** families use asbestos
- **Asbestos dust** covers surrounding fields
- Gender aspects



- Children playing in **asbestos waste**: KYZ has **no safe** handling of asbestos waste



Figure 1 Asbestos use among Asian countries between 1920–1970 (A), 1971–2000 (B) and 2001–2007 (C). Asbestos use (kg per capita per year) (■) >1.0, (■) 0.1 to 1.0, (■) <0.1, (□) data not available.

Respirology, Volume: 16, Issue: 5, Pages: 767-775, First published: 30 March 2011, DOI: (10.1111/j.1440-1843.2011.01975.x)

More Toxic Waste legacies: Uranium tailings



Gender aspects?

Can be linked to:

- contaminated water, milk, meat
- Health impacts and burden of case

Photo credits: Ikrom Mamadov



2.4. Incident - radioactive landslides broken fence in Mailuu-Suu



1.5. Min-Kush tailings. Broken fence and cows

GOOD PRACTICES IDENTIFIED



- UNDP Project “Protect human health and the environment from unintentional releases of POPs and mercury from the unsound disposal of healthcare waste in Kyrgyzstan”. Project was not focused on women but **80% of health workers in pilot health facilities were women**, so improving the HWM practice and phasing out mercury use will have a positive impact on women (reduced impact of POPs, mercury, infections)
- Kyrgyz-Turkish Manas University did study on bioremediation “The microbial degradation of obsolete pesticides in burial soils of Kyrgyzstan” The main objective: to study the microbial structural complexes of pesticide contaminated soils in the zones of burial grounds, to select destructive microorganisms with cytochrome P450 genes for pesticide degradation, to use selected bacteria for bioremediation of highly polluted soils around burial sites in model soil experiments. **Will have positive health** impacts for women, me, children living nearby.
- The National Strategy of the Kyrgyz Republic on Achieving Gender Equality up to 2020 and the National Action Plan on **Achieving Gender Equality** were adopted (in 2012). *Currently being updated*
- Law On State Guarantees of Equal Rights and Equal Opportunities for Men and Women (**no more than 70% of the staff of same gender**, including at the decision-making level in state bodies)
- In each ministry and department appointed **responsible person** for the implementation of gender issues
- Ministry of Emergency Situations Developed a **departmental plan on gender equality** (Order of the Ministry of Emergency Situations of the Kyrgyz Republic of November 17, 2012 No. 1005) Standing commissions and working groups on gender issues were established.
- There are initiatives **to promote community oriented recycling**.
- **PET bottles are collected** and send to Russia for recycling
- The Parliament announced plan for KYZ to **switch to organic farming** till’30
- The state environment agency announced soon a **ban on SUP** (April’19)

Initial Recommendations

POLICIES

- * Gender budgeting and reporting for Ministries/Agencies Chemicals, Pesticides
- * Implement Extended Producer Responsibility policies
- * Support alternative to chemical pesticides and insecticides

ACTORS

- * Inter-ministerial coordination on gender & chemicals
- * Gender & chemicals capacity building for staff of authorities
- * Support and partner with women's and Environmental CSOs
- * Local self-governance training and budget allocation gender & chemical

ACTIONS

- * Ban single use plastics urgently
- * Separate collection of plastics, car waste, e-waste
- * Close open waste dumps
- * Support new jobs for waste scavengers, especially women
- * Campaign agro-ecology, against un-labeled pesticides
- * Campaign on risks asbestos waste, keep away from children

DATA

- * Sex disaggregated data
- * Gender assessments
- * Norms, standards
- * Verification, monitoring, evaluation
- * Gender Budget analysis
- * Gender budget allocation

Recommendations (cont.)

- The **National Implementation Plans for BRS** should include women as actors of transformation as well as concrete **gender-responsive activities**
- **Gender disaggregated data** is needed on different levels and pathways of exposure by women and men from different sectors: *who* is exposed, *why* it happens (i.e. gender roles), *what* are the perceptions of local population that is affected.
- All ministries and agencies should **use gender tools** including formats for **budgeting and reporting** as set out in the **national gender strategy** and successfully used by some agencies (e.g. DRR)
- Set targets for gender balance at all levels of **decision-making** on the sound management of chemicals.
- Human health is essential, apply precautionary principles **to new POPs as PFOA** and ministry of health should set out study on differentiated exposure of women and men Support of initiatives and information campaigns, especially among civil society to reduce the risks of pollution in everyday life
- Involvement **of gender, human rights and environmental activists** in monitoring and planning of management of chemicals and waste



Thank you for attention

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