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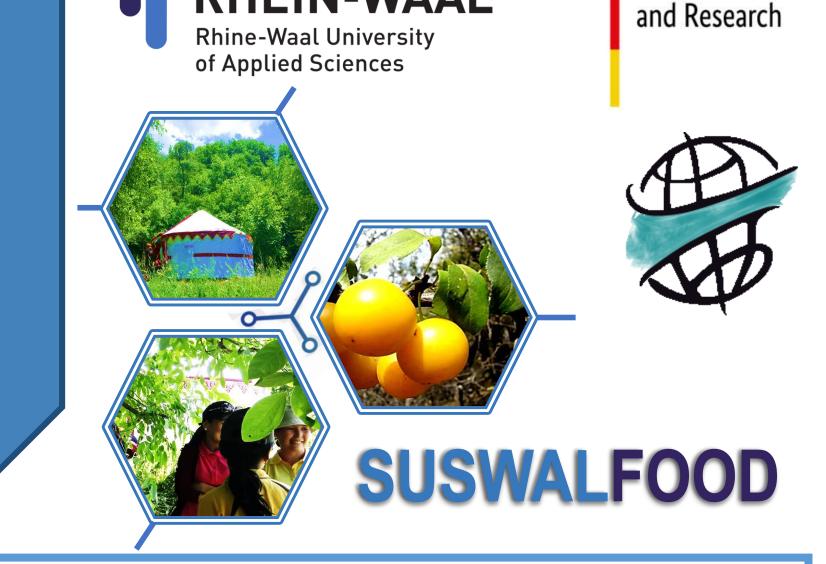
Research and Development in the Kyrgyz Walnut-Fruit Forests:

Achievements and Lessons Learned for the Future

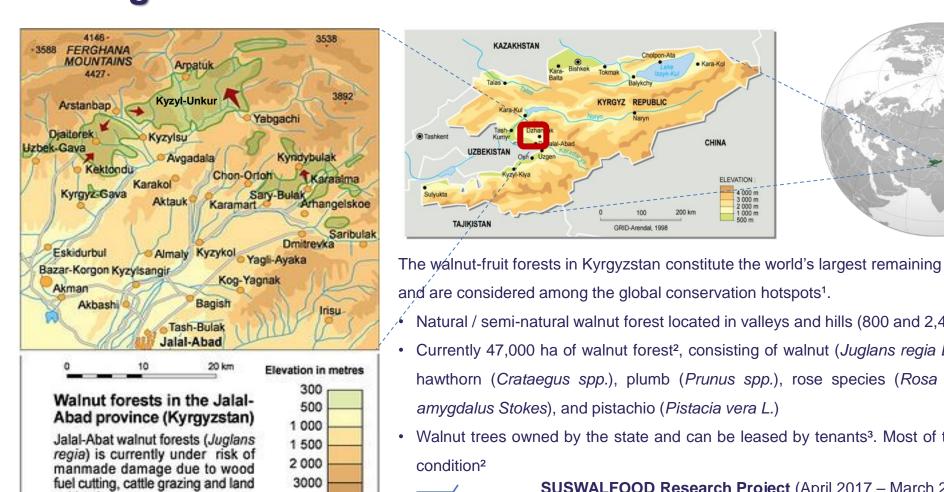
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1. Background and introduction



Rural population Rural population below the poverty line GDP per capita, USD The walnut-fruit forests in Kyrgyzstan constitute the world's largest remaining area of this forest type a) Low sub-zone (1000-1400 masl), Avg. Summer temp. 22-25°C Avg.annual precipitation: 400-700 mm hawthorn (Crataegus spp.), plumb (Prunus spp.), rose species (Rosa spp.) almond (Prunus Medium Sub-Zone (1400-1750 mais) Avg. Summer temp. 20-22°C Avg.annual precip-n:about 1000 mm Walnut trees owned by the state and can be leased by tenants³. Most of the forest under critical Optimal conditions, better quality, **SUSWALFOOD Research Project** (April 2017 – March 2019, BMBF) c) Upper sub-zone (1750-2000 masl) Nutritive potential (polyphenol, sugars, elementary components)

Avg. Summer temp. lower than 20°C Soicio-economic potential to the local population **SUSWALFOOD** • Ecological dimension: biodiversity conservation and sustainable use

Kyrgyzstan

Surface area, sq. km

199,951

Avg.annual precip-n: over 1000 mm High frost risk, low productivity, mainly used as pastures, hay-making Sources: 1: Blaser et al. (1998) 2: Scheuber et al. (2000) 3: Schmidt (2013) 4: Orozumbekov et.al., 2009 5: Kolov, 199

Research questions:

- What were the focus and results of walnut forest research over the last decades?
- Were the results of past scientific research and development projects sustained and used in current projects?
- Who are the main actors today on the field of Development Cooperation in the walnut forests?

Hypothesis:

Numerous projects and studies have taken place over the last decades in the Kyrgyz walnut-fruit forests. Yet, results of this work had only minor impact to improve the forest and living conditions in the area mainly due to the limited transfer of research and practical results from past to ongoing activities.

2. Methods and tools

Approximate limits of walnut forests

Increase in forest exploitation by humans

Data collection on development projects

- Representatives and project staff of 10 currently ongoing development projects (internationally supported technical cooperation) were interviewed and data confidence was kept;
- Representatives of 2 out of 10 projects refused to take part in the interviews, so data was collected from publicly available sources;
- Content analysis was used to interpret the results of the interviews, and to compose the stakeholder and activities maps;

Data collection on scientific research projects

- A list of academic and non-academic publications that appeared between 1930 and 2018
- (n=221) was used for content analysis;
- The litereature was classified by topics and by date to build the literature map.

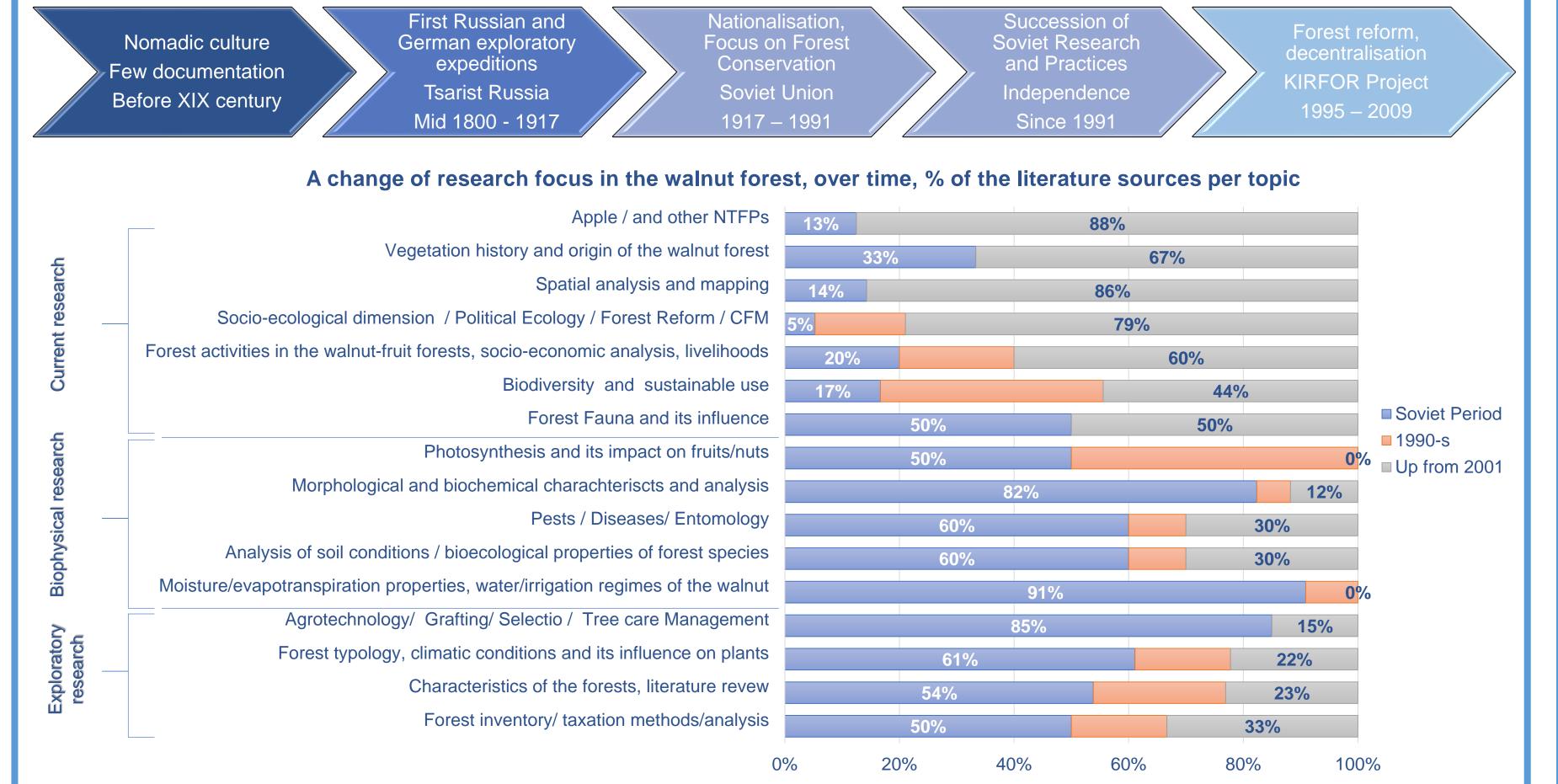




3. The map of the active development projets in the walnut-fruit forests

Projects	f	К	G	С	W	F	А	J	R	L	Lege	end*		
		MV					MV	MV			MV	Marketing/ Value Chains	TR	Trainings
Goals	BD	BD	BD							BD	BD	Biodiversity	IK	Informing/ Knowledge dissemination
			PA	AGR	IN	IN			AGR	PA	PA	Poverty alleviation	DEMO	Demonstrations
			CBFM							CBFM	AGR	Increased agro productivity	Y	Yes
	CD	CD	TA	CD	CD	CD	TA	TA	CD	TA	IN	Innovations in monitoring	N	No
Role				PU					CK		CBFM	Collaborative Forest Management	LC	Local Communities
	EDU				CG						CD	Capacity Development	YW	Youth and women
	D	PIU	D	PIU	D	PIU	PIU	D	PIU	PIU	TA	Technical assisstance	LA	Local authorities
Methods	СВ		СВ	СВ			СВ	СВ	СВ	СВ	PU	Pasture use	НА	Highe level authorities
	TR	TR	TR	TR	TR	TR	TR	TR	TR	TR	CK	Consultation/ Knowledge dissemination	IM	Interest/ motivation
	IK	IK		IK		IK	IK	IK	IK	IK	EDU	Education	PPP	Previous pilot projects
	DEMO	DEMO		DEMO			DEMO	DEMO	DEMO	DEMO	CG	Capacity building for governing	BEU	Beurocracy, top-down
Collaboration with processers	N	Υ	Υ	N	N	N	Υ	Υ	N	Υ		bodies		relationships Lack of interest among
Beneficiary	LC	LC	LC	LC	LC	LC	LC	LC	LC	LC	D	Donor	LI	local populations
	YW		LA		НА	LA					PIU	Project implementation Units	NI	Non-implementation of activities
Selection of Beneficiaries	IM	IM	PPP	PPP	PPP	PPP	IM	PPP	IM	IM	СВ	Capacity Building		
Difficulties	_	-	BEU	BEU	BEU	BEU	LI	LI	LI	NI	*Sequenc	ee of codes in legend in order of appea	rance in pr	oject map.

3.1 Research and reform in walnut forests: a change over time

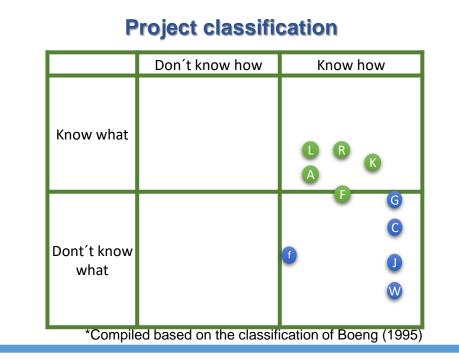


3.2 Stakeholder mapping		Developmen	t Projects	D	Danasah	F(Local community			
		Donor projects	PIUs	Regional Authorities	Research institutions	Forestry (Leskhoz)	Pasture users	Forest users	Women and Youth	
	Donor projects	Similar goals	Supervision	Bureaucracy, staff turnover in authorities		Reluctance to the changes if loosing "power"	Cooperation	Cooperation	-	
Development Projects	PIUs	Subordination	Cooperation	Bureaucracy, staff turnover in authorities		•	Lack of interest among local populations	Lack of interest among local populations	Cooperation (case) / Lack of interest amor local populations	
Regional authorities		Bureaucracy, staff turnover in authorities	Cooperation	Cooperation	Cooperation	Supervision	Limited relationships	Limited relationships	Limited relationship	
Research institutions		Cooperation	Cooperation	Cooperation	Cooperation	Cooperation	Cooperation	Cooperation	Cooperatio	
Forestry (Leskhoz)		change if	Reluctance to the changes if loosing "power"	Subordnation	Cooperation	Cooperation	Control of grazing / Conflict	Cooperation / Supervision	-	
Local community	Pasture users	Cooperation	Cooperation	Subordnation	Cooperation	Get limitations on pasture use/ conflicts	Cooperation / Competition	-	-	
	Forest users	Cooperation	Cooperation	Subordnation	Cooperation	Cooperation / Subordination	-	Cooperation / Competition	-	
	Women and Youth	-	Cooperation (1 case) / Lack of interest to participate	-	Cooperation	-	-	-	-	

Perceptions of the local communities about the ongoing activities:

"Trainings are interesting, but it is better to have some more practical skills like learning about medicinal herbs or growing fruit trees... (Forest user, Kyzyl-Unkur, 27.10.2017)

"The forest provides everything, people just need to do something, but they do not want to ... ' (Forest user, Kyzyl-Unkur, 29.10.17)



4. Discussion

- According to Ulybina (2015) the past activities of the Donor Projects as well as Forest Reform attempts over 1995-2009 were not successful to establish community-based forest management (CBFM) in the Kyrgyz forests mainly due to a poor understanding of how it can be fit to the local settings, low capacity of the local populations, the influence of the Soviet socio-political heritage, and continuous top-dow approaches.
- A similar pattern can be seen in the ongoing projects. Box 3 summarizes the activities of current development projects in a project map. The ongoing projects are all working on a common territotry of the walnut forests and apparently have very similar or even partially overlapping project goals (inceased incomes, improved processing and marketing opportunities etc.).
- In addition, the selection of beneficiaries lacks inclusiveness, as only interested villagers or communities from existing pilot projects are considered.
- While projects aim to consider local relationships, conditions and perceptions in their work, some problems described by Ulybina (2015) still exist. Such as reluctance of authorities to collaborate (mainly when changes would reduce their power and influence), or the unwillingness of community members to participate and to implement the agreed project activities.
- Difficulties and conflicts mainly occur on the axis of changes initiated by the donors or Project Implementing Organizations (PIUs, such as local NGOs) on the field (such as burocracy and staff turnover of the local authorities) or unwillingness of the local forest enterprise to give up their power and influence over the local communities) (Box 3.2).
- The project classification model in the Box 3.2 showed that it is mainly the donor programs shaping project implementation and defining what should be done, whereas other parties are not involved. According to respondents, a a variety of pilot projects can ensure a better understanding of suitable actvities to achieve intended outomes. PIUs, in contrast, are clearly located in the "Painting by Numbers area" (Obeng, 1995), i.e. they typically execute concrete tasks without much room to deviate from prescribed tasks.
- The literature map (Box 3.1) shows a limited transfer of research results from past to ongoing activities. While exploratory and biophysical research on the walnut forests were an important priority during Soviet times, research on these topics declined during the 1990s. Current research mainly covers topics such as biodiversity or sustainability of livelihoods and resource use, reflecting changing resource managemen systems and economic activities in the emerging market economy. Despite the apparent neglect of biophysical research topics, knowledge generated from such projects is still an important foundation required for the successful implementation of develoment activties in the walnut forests of Kyrgyzstan.

5. Conclusion and recommendations

- There is significant overlap and duplication in the work and implementation methods of development projects.
- The literature mapping shows that there was no continuity in walnut forest related research activities after the collapse of the Soviet Union. The change of research priorities reflected new social and economic realities in Kyrgyzstan.
- Inclusiveness is important at the stage of beneficiary selection. Along with that it is essential to assess the expectations, perceptions and the core issues of the local communities in order to develop the appropriate project activities.
- Systematic approaches including both socio-economic and environmental/ biophysical studies are important to find the correct solutions.

References

Obeng E., All Change: The Project Leader's Secret Handbook (Financial Times Series), 1995 2. Beyeler S., Rehnus M., Venglovskaya G.A., Sorg J.-P.: Bibliography on the walnut-fruit forests of southern Kyrgyzstan, 2011.

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