eco aral
Ecologically Oriented Development in the Aral Sea Region

SUSTAINABLE WILD COLLECTION OF LIQUORICE
Information Package

german cooperation
DEUTSCHE ZUSAMMENARBEIT

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FAIR WILD

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Registered offices
Bonn and Eschborn, Germany

Address
Chimkentskaya Str. 7 A
100029 Taschkent
T: +998 71 280 67 51

E giz-uzbekistan@giz.de
I www.giz.de/en

Programme/project description:
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Project Manager:
Paul Schumacher

Contact:
Julian Felten

Author/Responsible/Editor:
FairWild Foundation

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BE A PEACH

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Abbreviations and acronyms

BMZ	GERMAN FEDERAL MINISTRY FOR ECONOMIC COOPERATION AND DEVELOPMENT
CA	COLLECTION AREA
EU	EUROPEAN UNION
FWF	FAIRWILD FOUNDATION
GIZ	GERMAN AGENCY FOR INTERNATIONAL COOPERATION

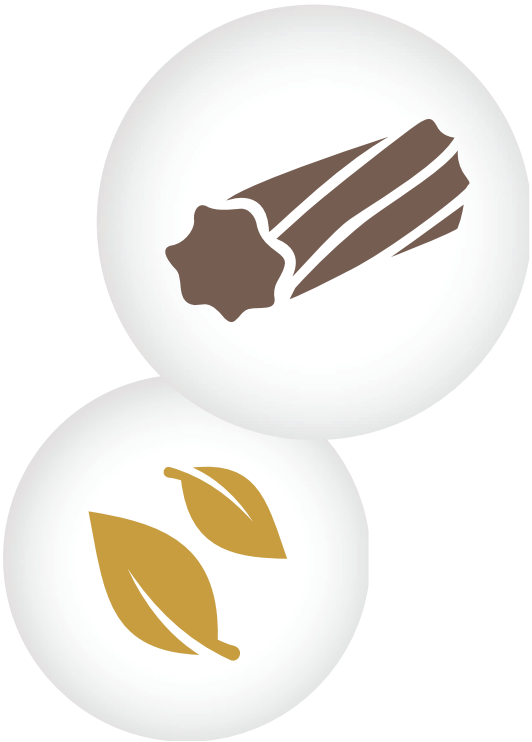
EXECUTIVE SUMMARY

Wild liquorice is an important economic resource in the Aral Sea region. However, it is a resource that is in decline in many areas due to land conversion, a lack of water, and high levels of salt in the soil. In some places the wild liquorice is being harvested too intensively and too frequently, making the plots less productive. There is an urgent need for sustainable collection practices that respect the needs of the liquorice plant to regenerate between one collection and the next. This guidebook shows what can be done by the companies organizing collection, and by the collectors themselves, to enable the wild liquorice plots to thrive for many years, with lasting economic benefits.

COMPANIES CAN TAKE PRACTICAL STEPS SUCH AS DEVELOPING:

- **A RESOURCE ASSESSMENT** to check that the wild liquorice plots are still suitable for collection and that there are enough mature and healthy plants to withstand collection;
- **A MANAGEMENT PLAN** that sets out how the collection will be organised and how any negative impacts on other resources will be avoided; and
- **A SET OF WRITTEN 'RULES' FOR THE COLLECTORS,** specifying for example when and where to collect, and what sizes of liquorice roots are appropriate to collect.

Companies using these kinds of good practices will be better prepared to access international markets. Some buyers and importing countries are setting more requirements for responsibly sourced products. Certification offers an opportunity for companies to clearly demonstrate their commitment to sustainably collected liquorice. The FairWild Standard is one of the most credible certification systems that covers ecological, social and economic issues related to wild collection of plants, including liquorice.



INTRODUCTION

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This guidebook provides practical advice on how the wild collection of liquorice (*Glycyrrhiza spp*) can be done in a sustainable way. It highlights the practices that need to be used to help the wild liquorice plants to thrive for many years and to continue to provide income for those involved in the collection and trade of this unique resource.

The guidance has been written primarily for companies involved in the wild liquorice business in Uzbekistan, but can also be applied in other countries, as it outlines the general requirements of sustainable wild collection. It sets out the good management practices that companies can put in place as well as the good collection practices that would need to be used in the wild liquorice plots. It also shows how companies can go one step further to obtain certification of sustainable wild collection. Certification helps companies to demonstrate their commitment to supply responsibly sourced liquorice.

Uzbekistan is a world leader in liquorice exports and the global market is growing fast. As a key ingredient for many sectors (health, beauty, food, etc.), liquorice offers substantial economic benefits. But companies need to consider two key trends that are very likely to affect their business:

ON THE SUPPLY SIDE, there has been a significant decline in wild liquorice resources in Uzbekistan. The plant is becoming less common in many places, and it is disappearing altogether in some areas. The main reasons for this problem include:

1. conversion of wild liquorice areas into agricultural land;
2. reduction in water availability as lakes and rivers dry up; and
3. increasing levels of salt in the soil, which makes growing conditions more difficult.

On top of this, collection practices that are too intensive mean that the plants are not given enough time to recover before the next collection cycle, so they become weaker and weaker.

ON THE DEMAND SIDE, some international markets are setting several requirements for sustainable sourcing. Export destinations such as the European Union increasingly require companies to prove that their products meet certain environmental and social standards. Companies will need to align with these standards if they want to secure future access to important export markets.

As part of a project in the Aral Sea region, the German government has been supporting sustainable development of the wild liquorice value chain in Uzbekistan and Kazakhstan.[1] The Swiss-based FairWild Foundation has been working with GIZ on this issue, providing capacity building to micro, small and medium companies on sustainable practices and the potential for certification of sustainable wild collection. The sustainable practices being introduced are based on the FairWild Standard, one of the most credible voluntary certification systems covering ecological, social and economic issues related to wild collection of plants.[2]

The good practices outlined in the guidebook are applicable in other regions of the world. All companies active in the wild liquorice value chain are encouraged to use these practices to benefit from the opportunities that exist to improve management, add value and improve access to international markets.

1 The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is implementing the project 'Ecologically Oriented Regional Development in the Aral Sea Region' (ECO ARAL) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ).
2 See page 11 for more details on the FairWild Standard.

IS IT WORTHWHILE TO USE SUSTAINABLE METHODS OF WILD COLLECTION?

Destructive collection of wild liquorice can be profitable, but only in the short term. Overcollection – digging deep to get more roots, taking most of the available roots, and coming back within a year or two to collect again – will soon deplete the resource and after a couple of collection cycles there will be very little left. On the other hand, if wild collection respects the natural capacity of the liquorice plants to grow new roots, a collection site can remain productive for many years. So, in the long-term, companies will be more successful if they make sure that they don't exhaust the resource.

A BUTTERFLY ON A LIQUORICE PLANT IN UZBEKISTAN.

PHOTO: WOLFGANG KATHE

TAKING CARE OF NATURE MAKES GOOD ECONOMIC SENSE

Wild liquorice areas are home to other plants and animals that help maintain a healthy environment. For example, plants growing in and around liquorice plots provide food, shelter and nesting places for insects such as bees, wasps, butterflies and bugs. In turn, the bees and wasps pollinate the liquorice flowers, enabling them to produce the next generation of plants. And the other insects attract birds and small mammals that help disperse the liquorice seeds so the plants can cover a wider area. Collection will inevitably disturb this environment as the area is cleared to expose the liquorice roots. But collectors can take simple measures, such as leaving some patches of vegetation and border zones intact, to allow these plant-animal interactions to continue. The result will be not only a healthier environment but also a more productive resource for wild collection.

UZBEKISTAN CONTEXT

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In 2021 Uzbekistan was the world's largest supplier of liquorice by volume . Uzbekistan has large reserves of wild liquorice, mostly in the territory of Surkhandarya, Kashkadarya regions and in the Republic of Karakalpakstan. The government has put policy measures in place to intensify the cultivation and wild collection of liquorice and to strengthen the country's capacity to export value-added liquorice products. At the same time, national regulations seek to address the ongoing depletion of liquorice resources in Uzbekistan. A list of relevant legislation is provided below.

Annual quotas for harvest and export of liquorice are set by the Ministry of Ecology, Environment and Climate Change. Any company or individual harvesting liquorice pays a fee of US$220 per ton, while the fee for exporting unprocessed liquorice root is US$225 per ton, as stipulated in Resolution No. 290.

LIST OF LEGISLATIVE MEASURES RELEVANT TO WILD COLLECTION OF LIQUORICE IN UZBEKISTAN

The Uzbekistan Association of Organizations for the Production and Processing of Liquorice and other Medicinal Plants lists the following pieces of legislation currently in place.[3]

PRINCIPLES OF ECOTOURISM INCLUDE:

- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 290 dated October 20, 2014 "On regulating the use of biological resources and on the procedure for passing permitting procedures in the field of environmental management"
- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 85 dated March 23, 2016 "On measures to further improve the use of flora for the purpose
- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 63 dated January 27, 2018 "On measures to develop further production and industrial processing of liquorice and other medicinal plants in the Republic of Uzbekistan"
- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 138 dated February 15, 2019 "On additional measures for the effective organization of production and industrial processing of liquorice and other medicinal plants"
- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 430 dated May 25, 2019 "On approval of the regulations on the procedure for creating and maintaining state records of nurseries and plantations for growing wild plants"
- Resolution of the President of the Republic of Uzbekistan No. 4670 dated April 10, 2020 "On measures for the protection, cultivation, processing of wild medicinal plants and the rational use of available resources"
- Resolution of the President of the Republic of Uzbekistan No. 327 dated May 27, 2021 "On additional measures to expand the raw material base for deep processing of natural raw materials and mineral resources of the Republic of Karakalpakstan in 2021-2022 and the creation of an added value chain on this basis"

3 See page 13 for more details on the Association. List of legislation retrieved September 2023, from https://qizilmiya.uz/zakonodatelstvo/dejstvuyushhie-zakony/

SUSTAINABLE WILD COLLECTION

SUSTAINABLE WILD COLLECTION

BEFORE COLLECTION

- ☑ **DO A RESOURCE ASSESSMENT** to find out where wild liquorice is growing in the area, how much can be harvested sustainably, and what changes to collection methods are needed to maintain the liquorice resources. Expert advice is needed when conducting a resource assessment. (See Annex 1 for more details and a Resource Assessment template)

- ☑ **DEVELOP A MANAGEMENT PLAN** to set out how each collection site and each collection period will be organised. (See Annex 2 for more details and a Management Plan template)

- ☑ **TRAIN THE COLLECTORS** in sustainable practices and in botanical knowledge so they do not do unnecessary damage to the liquorice plants and to the environment.

- ☑ **CREATE A SET OF WRITTEN 'COLLECTION RULES'** for the collectors on, for example, where and when to collect, the maximum amount to collect and the minimum size of liquorice roots to collect.

- ☑ **SCHEDULE THE COLLECTION** for the appropriate time of year when the plants will regenerate well after collection (i.e., from March to November).

- ☑ **CHOOSE SITES** that are suitable for collection (i.e., sites that have plenty of liquorice plants that are ready for collection, and sites that don't have any of the problems listed below).

- ☑ **KEEP WRITTEN RECORDS** of where the collection will take place, to be able to check how well the plants recover and to be able to tell interested buyers where the liquorice resource came from.

- ☑ **VISIT EACH SITE** before collection to check how much liquorice is ready for collection to make sure that the plot will continue to be productive in the future.

- ☑ **FIND OUT IF THE SITE HAS ANY ENDANGERED PLANTS OR ANIMALS**, or any sensitive areas (e.g., riverbanks or important habitats for breeding animals) and take special care to protect them.

- ☑ **OBTAIN A COLLECTION PERMIT** from the relevant authorities.

- ☑ **REQUEST A CLEAR INSTRUCTION FROM YOUR CLIENT** in terms of the quantity and quality of liquorice required, to prevent unnecessary wastage.

- ☑ **MAKE SURE THERE IS AN EXPERIENCED PERSON** in each collection team who can show the others how to follow the collection rules, and ensure that records are being kept.

HOW TO BEST HELP LIQUORICE PLANTS TO REGENERATE?

Liquorice plants have a strong capacity to reproduce by forming new rhizomes from their roots. Rhizomes are essentially underground stems that produce shoots that grow upwards. For a plot of liquorice to regenerate after collection, it is essential to leave thin roots in the soil so that rhizomes can grow and form new shoots.

The plants also reproduce by seed. Collectors can help this process by cutting the stems with mature seed pods and returning them to the soil so there is a better chance for the seeds to germinate successfully.

DURING COLLECTION

- ☑ LEAVE AT LEAST 3-5 YEARS BETWEEN EACH COLLECTION to allow the plants to regenerate.
- ☑ PLOUGH TO A MAXIMUM DEPTH of 40 cm in river floodplains, and 60 cm in steppe depressions.
- ☑ For small stands of liquorice DIG OUT THE ROOTS MANUALLY, using shovels.
- ☑ COLLECT ON DAYS WHEN IT IS NOT RAINING, unless you have a way to dry the roots immediately after collection.
- ☑ TAKE OUT NO MORE THAN THREE-QUARTERS OF THE ROOTS AND RHIZOMES, leaving the rest in the soil to regenerate.
- ☑ COLLECT FROM PLANTS THAT ARE MATURE (at least 2 years old).
- ☑ COLLECT ONLY HEALTHY ROOTS of minimum thickness 1 cm wide. Leave all thinner roots in the ground.
- ☑ USE CLEAN SACKS AND TOOLS.
- ☑ KEEP WRITTEN RECORDS, of each collection in a collector's diary (collector's name, batch code, collection site, species name, date of collection, weight of roots collected).
- ☑ PREPARE PRINTED TAGS **to attach to the sacks at the time of collection with key information from the collector's diary.**

DO NOT COLLECT FROM SITES THAT:

- are in areas where you don't have permission to collect
- where collection would offend local communities (e.g., places of worship) or damage culturally important places (e.g., archaeological sites)

TAKE EXTRA PRECAUTIONS IF COLLECTING IN SITES THAT:

- have endangered species of plant or animal or sensitive habitats
- are within 300 m of motorways or main roads, or agricultural fields
- are within 1 km of sources of pollution (e.g., waste dumps)
- are within 1 km of industrial complexes of mines (even if they are not in operation)

AFTER COLLECTION

- ☑ TRANSPORT THE COLLECTED ROOTS for processing as quickly as possible.
- ☑ Make sure that the transport VEHICLE IS CLEAN AND DRY before use.
- ☑ PROTECT THE ROOTS FROM HEAT AND RAIN during transport.
- ☑ TRANSPORT, STORE AND PROCESS ROOTS FROM ORGANIC COLLECTION AREAS SEPARATELY, so they don't get mixed up with roots from other areas.
- ☑ MAKE SURE THE PROCESSING AREA AND STORAGE CENTRE ARE CLEAN and that there are no fertilisers, pesticides or other chemicals in them.
- ☑ DO NOT USE OLD TARPAULINS to sort out the roots, especially if small plastic pieces are flaking off.
- ☑ DO NOT HANDLE THE ROOTS IF YOU HAVE AN INFECTIOUS DISEASE OR OPEN WOUNDS.
- ☑ REMOVE ALL WEEDS and other unwanted material when you sort the roots.
- ☑ CLEAN THE ROOTS AND RHIZOMES WELL with a high-powered water spray.
- ☑ THE ROOTS CAN BE DRIED IN DIRECT SUNLIGHT. If burning wood to dry the roots, make sure the wood has not been treated with chemicals.
- ☑ USE A CLEAN SPACE for storing the liquorice roots.
- ☑ MAKE SURE THAT THE STORAGE CENTRE HAS A RECORD BOOK with details of what material comes in and what goes out.
- ☑ STORE THE SACKS AWAY FROM THE WALL and keep them off the ground (e.g., on palettes).
- ☑ MAKE SURE THAT EACH SACK IN THE STORAGE AREA IS CLEARLY LABELLED with the name of species, batch number and origin.

BUYING COLLECTED ROOTS

- ☑ PURCHASE ONLY FROM REGISTERED COLLECTORS.
- ☑ CHECK THAT THE COLLECTED ROOTS ARE THE RIGHT THICKNESS (at least 1 cm thick) – do spot checks on some of the sacks.
- ☑ KEEP WRITTEN RECORDS with details of all purchases.
- ☑ GIVE COLLECTORS A RECEIPT for each of the sales.
- ☑ IF THE PURCHASE CENTRE IS AN INDEPENDENT OPERATOR, it needs to be contracted by the wild collection project operator.
- ☑ For certified liquorice, REPORT TO THE CERTIFIER THE TOTAL AMOUNT PURCHASED in each season.

CERTIFICATION

CERTIFICATION

Several organisations offer voluntary sustainability certification of wild collected liquorice. In addition, it is possible to obtain organic certification of liquorice, for example to demonstrate compliance with the EU organic regulation 2018/848 for wild collected products. This regulation requires companies to prove that collection areas were not treated with unauthorized products for at least three years prior to collection, and that the collection does not affect the stability of the natural habitat or the maintenance of the species in the collection area.

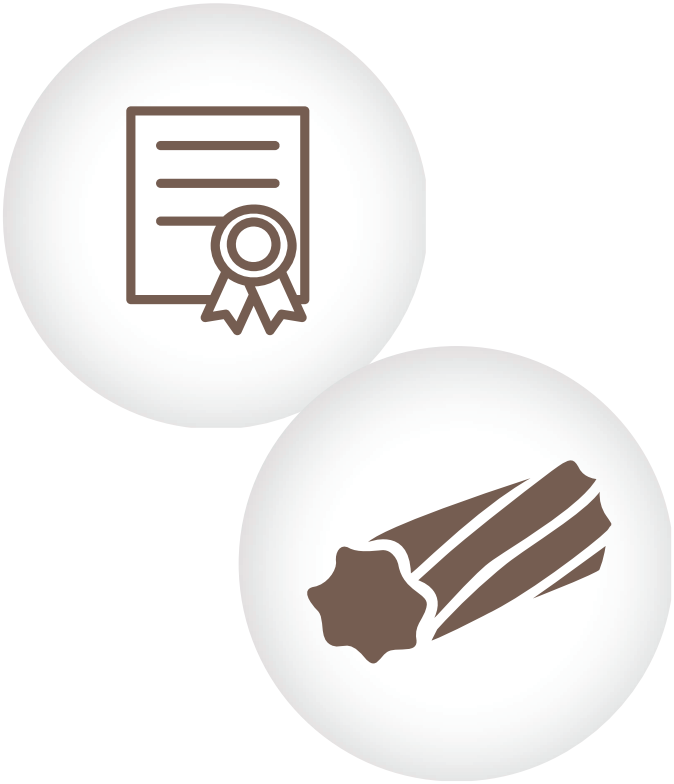
FairWild CERTIFICATION

FairWild certification is a voluntary global framework that verifies ecological, social and economic sustainability of wild collected ingredients and products. The certification is based on the FairWild Standard, which is aligned with global biodiversity commitments and strategies. Currently FairWild certification covers 47 species collected from around the world and more than 40 companies have achieved certification, with as many more trading in FairWild certified ingredients. This includes four certified companies for liquorice root sourcing, in Kazakhstan, Uzbekistan, Georgia, and Spain. A growing number of manufacturing companies committed to sustainable sourcing have indicated a strong interest in sourcing more FairWild-certified liquorice for their products.

COMPANIES WISHING TO LEARN MORE ABOUT THE FAIRWILD CERTIFICATION PROCESS CAN CONTACT BUSINESS@FAIRWILD.ORG.

THE MAIN STEPS INVOLVED IN OBTAINING FAIRWILD CERTIFICATION ARE OUTLINED IN **ANNEX 3**.

FairWild certified companies demonstrate their compliance with the standard through documentation (including for example, Resource Assessments, Management Plans, Collection Rules, and evidence of having trained collectors in good practices) and through audits that are carried out each year. Annex 4 lists some examples of traders, processors and brands that use FairWild-certified liquorice.



Issues covered by the FairWild Standard

WILD COLLECTION AND CONSERVATION

1. Maintaining wild plant resources
2. Preventing negative environmental impacts

LEGAL AND ETHICAL REQUIREMENTS

3. Complying with laws, regulations, and agreements
4. Respecting customary rights and benefit sharing

SOCIAL AND FAIR-TRADE REQUIREMENTS

5. Promoting fair contractual relationships between operators and collectors
6. Limiting participation of children in wild collection activities
7. Ensuring benefits for collectors and their communities
8. Ensuring fair working conditions for all WORKERS OF FAIRWILD OPERATIONS

MANAGEMENT, TRACEABILITY, BUSINESS

9. Applying responsible management practices
10. Applying responsible business practices

FOR BUYERS OF WILD COLLECTED PRODUCTS

11. Promoting FairWild buyer commitment

APPLYING THE FAIRWILD STANDARD FOR SUSTAINABLE COLLECTION OF WILD LIQUORICE IN UZBEKISTAN

This table shows the kinds of evidence that can be provided by liquorice collection companies in Uzbekistan to show their compliance with the conditions set in the FairWild Standard.

REQUIREMENT FOR FAIRWILD CERTIFICATION	PROOF OF COMPLIANCE
The land for wild collection needs to be leased by the collection company for a minimum period of 10 years (i.e. two liquorice production cycles).*	Land lease contract
Wild collection is not allowed to take place along the borders of fields that are cultivated with cash crops.	Field check by certification body
The liquorice vegetation occurs spontaneously – it has not been planted.	Field check by certification body
No prohibited chemical fertilisers or pesticides have been used on the land for the three years prior to the first collection.	Previous certification Official confirmation from trustworthy source
The land where wild collection takes place is under organic management, with no use of chemical fertilisers, pesticides or herbicides.	Management plan or other documentation Field check by certification body
There is no active cultivation of liquorice, except for enrichment seeding and irrigation of the plot.	Management plan or other documentation Field check by certification body
Harvesting of wild liquorice must comply with these requirements: - A minimum of 3 to 5 years between each collection, to allow for regeneration; - Root harvesting to a maximum depth of 40 cm in river floodplains, and 60 cm in steppe depressions; - Removal of no more than three-quarters of the roots and rhizomes, leaving the rest in the soil to regenerate.	Management plan Collection rules set by the company Training material used to instruct collectors Interviews with collectors during an audit
The amount of liquorice collected does not exceed the quota and the company pays the necessary taxes.	Official confirmation Documentation

* Government Decree 708/709 states that agricultural land can be rented for up to 30 years, without the right of local governors to request it back earlier (as has happened in the past).

WHAT MANAGEMENT METHODS ARE COMPATIBLE WITH WILD COLLECTED LIQUORICE?

For liquorice to be FairWild certified as wild collected, it needs to be harvested from plants that grow spontaneously and without the use of any chemicals (pesticides, fertilisers, etc.). However, minimal 'management' techniques are allowed, including enrichment planting to increase the density of liquorice in the plot, replanting some smaller roots after harvesting, harvesting the liquorice leaves for use as cattle fodder, irrigating the liquorice plot, and weeding it to give the plants space to grow.

RESOURCES

For support

The **Export Promotion Agency** of Uzbekistan (EPA) is supporting organic export activities by co-financing up to 20% of the organic certification costs. Assistance to obtain international certificates can be requested via their website: https://epauzb.uz/

The **German Import Promotion Desk** (IPD) is helping liquorice producing companies to find trade partners in Europe and to tap new markets. With its local office in Tashkent, IPD advises potential exporters through the whole process. They can provide companies with market knowledge and information on, for example, meeting the quality regulations and obtain-ing the necessary certificates. https://www.importpromotiondesk.com/exporters/partnercountries/uzbekistan

The Uzbekistan **Association of Organizations for the Production and Processing of Liquorice and Other Medicinal Plants** provides organisational, legislative and technical support, capacity building, and other assistance for companies active in the liquorice value chain. See: www.qizilmiya.uz

For further information

FairWild Foundation. 2010. **FairWild Standard: Version 2.0**. FairWild Foundation, Weinfelden, Switzerland.

Gemedzhieva, N., Khrokov, A., Heral. E., Timoshyna, A. TRAFFIC (2021). **Sweet dreams: Assessing opportunities and threats in Kazakhstan's wild liquorice root trade**. Cambridge, UK.

ANNEXES

- ANNEX 1. Resource Assessment template
- ANNEX 2. Management Plan template
- ANNEX 3. Steps to achieve FairWild certification
- ANNEX 4. Examples of potential importers of wild collected liquorice

ANNEX 1. RESOURCE ASSESSMENT TEMPLATE

Companies are encouraged to do a resource assessment before starting any collection in a region. A resource assessment is an essential part of an adaptive management process for wild harvesting operations. Resource assessments help companies to better plan for sustainable collection, by being able to:

- estimate sustainable harvesting limits for a specific wild plant resource within a particular collection area;
- understand the impact of harvest limits (quantities, size/age classes) on the recovery of plants/populations; and
- make the necessary adjustments in harvest methods to maintain the target plant/population.

There are 6 steps to conducting a resource assessment:

- Step 1. Species identification and information
- Step 2. Situation analysis
- Step 3. Resource inventory
- Step 4. Determination of sustainable yield
- Step 5. Impact assessment
- Step 6. Resource monitoring

It is highly recommended to seek expert advice when conducting a resource assessment. A resource assessment would need to be repeated from time to time, to keep up with any changes in the collection areas. A 5-to-10-year interval is recommended between each resource assessment, depending on how well the liquorice resources are responding to collection and other pressures. Companies can monitor the resources every two years, in between each formal resource assessment.

This template outlines the potential structure of a resource assessment report.

STEP 1. SPECIES IDENTIFICATION AND INFORMATION

	Confirmed by scientist				Confirmed by local staff / resource users				No formal confirmation			
Target species identified is: Click / enter scientific and common names	☐				☐				☐			
	Tree or shrub				Herb (perennial)				Herb (annual)			
Description of target plant: Click / enter text; information on size, min/max harvestable age, reproduction …	☐				☐				☐			
	Used for medicine				Used for food				Used for other purpose			
Plant part(s) used is/are: Click / enter text; if more than one, add new line	☐				☐				☐			
	Not threatened				Threated (national red list)				Threatened (IUCN red list)			
Threat status of plant species: Click / enter text; mention threat category if applicable	☐				☐				☐			
	J	F	M	A	M	J	J	A	S	O	N	D
Harvest period of target plant part: Click / enter text; tick months and indicate in text peak harvest period	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

ADDITIONAL INFORMATION FOR STEP 1:

If plant / plant part(s) are used for medicine: what drug name(s) is/are used?
Click / enter text

Habitat(s) of the target plant
Click / enter text (e.g. soil requirements; nutrient needs; preferred habitats; climatic requirements)

Distribution of the target plant
Click / enter text (continents, countries, regions, provinces, or smaller units where the plant occurs)

Harvest techniques and technology
Click / enter text (describe technology and techniques used to harvest liquorice roots)

STEP 2. SITUATION ANALYSIS

Name / number of collection area (CA)	Location	Size [ha]	Ownership / Collection Permit
Enter CA name/number (one line per CA; refer to map in annex if available)			
Enter CA name/number (one line per CA; refer to map in annex if available)			

Information on collection areas	Mainly forest/ bush	Mainly open grassland	Exclusion zones
Characterization of collection area(s): Click / enter descriptive text/information; specify exclusion zones if there are any	☐	☐	☐
	High	Average	Low
Biodiversity (plants/animals) at collection area: Click / enter descriptive text/information	☐	☐	☐
Risk assessment 1: risk of area conversion Click / enter descriptive text/information	☐	☐	☐
Risk assessment 2: risk of overcollection Click / enter descriptive text/information	☐	☐	☐
Risk assessment 3: risk of pollution Click / enter descriptive text/information	☐	☐	☐
	By state	By private company	None
Resource management: Click / enter descriptive text/information	☐	☐	☐

ADDITIONAL INFORMATION FOR STEP 2:

Have the resource users (collectors or collection managers) long-term resource use rights (ownership or long-term rent)?
Click / enter text (description of management rights; if land is rented: for which period?)

Measures taken to preserve / advance biodiversity at and around collection areas
Click / enter text (describe measures, responsibilities and planned schedule to implement measures)

Measures taken to avoid or reduce the risks to the resource, as identified above
Click / enter text (describe measures, responsibilities and planned schedule to implement measures)

STEP 3. RESOURCE INVENTORY

Resource calculation	Average number of shoots per m2	Average amount of harvestable root in kg per m2 (no correction factor included)	Average amount of harvestable root in kg per m2 (with correction factors included)	Amount of harvestable roots in tonnes per ha
Number/name of plot / date of assessment				
Add no./name/date				
Add no./name/date				
Add further lines if necessary				

ADDITIONAL INFORMATION FOR STEP 3:

a. How well does the assessment calculation match with experiences of harvesting liquorice roots in the assessed collection area?
Click / enter text (compare to previous harvests if available; adapt average weight calculation or correction factors if necessary)

Are there additional factors that may have an influence on the resource?
Click / enter text (if yes: describe factors; if no: indicate 'no')

STEP 4. DETERMINATION OF SUSTAINABLE YIELD

	Less than 40 %	About 40%	More than 40%
Percentage of roots in the ground after harvest: Click / enter text;	☐	☐	☐
	40 cm or less	40-60 cm	Deeper than 60 cm
Harvesting depth: Click / enter the information on tools used for harvesting / depth of ploughing	☐	☐	☐
	Yields decrea-sing	Constant	Yields increasing
Yield development during past 10 years: Click / enter text; describe briefly	☐	☐	☐
	Less than 3 years	3-4 years	More than 4 years
Regular interval between two harvests: Click / enter text; explain intervals	☐	☐	☐

ADDITIONAL INFORMATION FOR STEP 4:

Why was the specific harvest interval chosen?
Click / enter text

Which factors have an influence on resource regeneration in wild collection areas?
Click / enter text (e.g. competition with other plants; climate developments; water availability; replanting etc. Describe factors noticed and explain why these factors have an influence)

Does active replanting of liquorice roots or seedlings / enrichment planting take place within the wild collection areas?
Click / enter text (if yes: describe; if no state 'no')

What is – as a summary and in resource managers' experience – the optimum harvest interval in the specific wild collection areas?
Click / enter text (give a brief rationale)

STEP 5. IMPACT ASSESSMENT

	Population decrease	Population stable	Population increase
General harvest impact on target resource: Click / enter text/explanation	☐	☐	☐
General harvest impact on local flora: Click / enter text/explanation	☐	☐	☐
General harvest impact on local fauna: Click / enter text/explanation	☐	☐	☐
	Deteriorating soils	No impact	Enrichment of soils
Impact of liquorice harvest on soils: Click / enter text/explanation	☐	☐	☐

ADDITIONAL INFORMATION FOR STEP 5:

If there are negative harvesting impacts on the target resource or on soils: what measures are taken to reduce or eliminate these impacts?
Click / enter text (describe impact, measures taken or to be taken, timelines and responsibilities)

If there are negative harvesting impacts on local flora: what measures are taken to reduce or eliminate these impacts?
Click / enter text (indicate the species that are negativey impacted, measures taken or to be taken, timelines and responsibilities)

If there are negative harvesting impacts on local fauna: what measures are taken to reduce or eliminate these impacts?
Click / enter text (indicate the species that are negativey impacted, measures taken or to be taken, timelines and responsibilities)

If there are positive harvesting impacts on the resource, soils, flora or fauna: which are these?
Click / enter text (indicate any positive impacts and describe them)

STEP 6. RESOURCE MONITORING

	substantially ☺	slightly ☺	slightly ☹	substantially ☹	None
Changes in target resource availability: Click / enter text/explanation	☐	☐	☐	☐	☐
Development of target resource yields / ha: Click / enter text/explanation	☐	☐	☐	☐	☐
Changes in the management of wild collection: Click / enter text/explanation	☐	☐	☐	☐	☐
Changes in impact of harvesting on resource: Click / enter text/explanation	☐	☐	☐	☐	☐
Changes in impact of harvesting on biodiversity: Click / enter text/explanation	☐	☐	☐	☐	☐
Changes in impact of harvesting on soils: Click / enter text/explanation	☐	☐	☐	☐	☐

Additional information for Step 6:

Is the monitoring interval of 2 years adequate?
Click / enter text (provide explanation why it is adequate or not. If not: propose different interval.

Does the calculation method used provide reliable results? If not: what adaptations are proposed?
Click / enter text (provide a rationale if calculation methods should be adapted and propose a revised method)

ANNEX 2. MANAGEMENT PLAN TEMPLATE

This template outlines the potential structure of a management plan to be drawn up by a company involved in wild liquorice collection.

1. SPECIES IDENTIFICATION

Taxonomy of the species collected
Scientific determination/proof for the correct taxonomy

Name of species (Scientific name)	Evaluation

2. INTRODUCTION OF THE COLLECTION OPERATION

- Short company description: name + address, legal form, main activities (besides wild collection)
- Product + related activities.
- Background
- Goals and objectives of the management plan
- Used documents and references, such as reports, surveys, statistics etc.)
- Summary for public information
- Project structure – full disclosure of supply chain
- Staff and responsibilities
- Other certifications: standard and control body
- Reference to business plan and other key documents

Name of collection operation Address	Evaluation

3. BASELINE INFORMATION

3.1 CONSERVATION STATUS ASSESSMENT

For each target species, information on:

- Conservation status as defined according to the International Union for Conservation of Nature Red List of Threatened Species (IUCN Red List), and other relevant local/national conservation authorities
- Result of the FairWild species risk classification (pre-condition for first certification of a species)

3.2 TARGET PLANTS / PLANT PARTS

For each target species, information on:

- Description of the species, including reproduction system and replacement rate
- Collection method
- Uses of the collected plant/part of plant
- Importance of the species for the company and collection community
- Special functions in the ecosystem
- Quality and market requirements

3.3 SITUATION ANALYSIS

For each collection area

- Maps are available, including resource mapping (marking of growing locations in collection plots)
- Description of the area with defined location
- Ownership and tenure
- Identified sites not suitable for collection ("inner borders")
- Identified protected or sensitive sites
- Other identified sensitive species
- Information on any existing habitat management practices applied in the collection area

3.4 RESOURCE INVENTORY

An inventory of the target resource provides a base line for monitoring changes in resource quantity in the collection as a result of collection management or other impacts. An inventory provides information about the quantity of the target resource by estimating both resource density (number per unit area) and abundance (total number in a specified area).

3.5 REGENERATION

Yield and regeneration studies, together, estimate the sustainable harvest yield of a target resource, giving an answer to the central question: How much of the target resource (quality and quantity) can be harvested season after season without damaging the long-term stability of the target species populations?

3.6 IMPACT ANALYSIS / RISK ASSESSMENT

Wild collection does not only have an impact on the resource as such but also on the habitats and other plant and animal species. Impacts may be the increase or decrease of resource availability; impacts on local flora, fauna, habitats, soil and water resources; positive impacts such as increased potential for conservation through adding economic value to natural habitats; or any other positive or negative influences on the target resource, habitats and populations of other species. Any observations regarding such impact are valuable and can be important in order to establish a sustainable harvesting system. Measures taken to reduce negative impacts should be described.

A risk assessment should be developed regarding:

- areas of potential contamination
- potential negative impacts of the collection activities on the target species, on any rare, threatened, or endangered species in the collection area, on habitat(s) / ecosystem / landscape-level
- Potential negative impacts of intensive target species management practices, i.e. enrichment planting
- Implementation of precautions and procedures to negate or minimise those impacts.)
- Additional information:
- Purchase or collection of the same target species outside of FairWild certification scope.
- Inclusion of known threatened species in the collection operation's assortment.)

3.7 RESOURCE MONITORING

- Monitoring of resources
- Revision and further development of management plan, including considerations of any other management plans that refer to the collection area
- Key parameters / indicators for monitoring of collection impacts and their measurement

4. COLLECTION AND POST-HARVEST PRACTICES

- Internal collection rules, including plant monographs
- List of registered collectors (template)

Information on:

- Registration of collectors
- Training and capacity building of collectors and staff
- Purchase procedures
- Post-harvest handling by collectors
- Storage, processing and handling procedures
- Internal product quality standard (minimum product quality and hygiene requirements).

5 SOCIO-CULTURAL ASPECTS

Key policies on:

- basic human rights
- children's rights
- health & safety
- fair arrangements for collectors
- labour rights

Self assessment on:

- Health & Safety
- Fair arrangements for collectors (contract, communication, training etc.)
- Fair pricing & payment to collectors (price setting, purchase procedures etc.)
- Labour rights

6. BENEFITS & CUSTOMARY RIGHTS OF WILD COLLECTORS AND THEIR COMMUNITIES

- Traditional user rights & compensation
- FairWild premium fund

7. LEGAL COMPLIANCE

Collection and management activities shall be carried out under legitimate tenure arrangements and comply with relevant laws, regulations and agreements.

- Laws, regulations and administrative requirements
- Access and benefit sharing: Nagoya Protocol principles

8. RESPONSIBLE BUSINESS PRACTICES

- Appropriate documentation
- Resource management plan
- Traceability throughout the supply chain: Collection and post-collection identification, labelling, and record keeping procedures allow to trace back each batch of goods to the area where it was collected.
- Residue management

9. BUSINESS ETHICS

- Identification of stakeholders
- Business Plan: mission, vision, risks, marketing etc.

10. LIST OF ANNEXES

ANNEX 3. STEPS TO ACHIEVE FAIRWILD CERTIFICATION

A company interested in obtaining FairWild certification for wild collected liquorice can follow these steps. For more details, see: https://www.fairwild.org/for-business.

APPLICATION

The first step is to contact a FairWild Foundation-approved control body to begin discussions. An application to the FairWild Foundation is submitted in parallel.

AUDIT PREPARATION

Preparation starts for the audit, guided by the approved control body. The company can undertake a basic self-assessment to help prepare.

AUDIT

The audit takes place, assessing compliance with the FairWild Standard. This process is an on-site inspection that normally takes 2–3 days.

REVIEW

Audit reports are reviewed by the control body.

CERTIFICATION

The final assessment with regard to compliance with the FairWild certification requirements, and issuance of the FairWild Certificate by the approved control body.

CONTINUATION

Successful FairWild certificates are valid for 15 months. Audits are required annually, based on species harvest times.

ANNEX 4. EXAMPLES OF POTENTIAL IMPORTERS OF WILD COLLECTED LIQUORICE

List of European and American brands that import liquorice

COMPANY NAME	SECTOR	WEBSITE	COUNTRY
Aveda	Cosmetics	www.aveda.co.uk	USA
Chanel	Cosmetics	www.chanel.com/gb/ma-keup	France
fushi	Cosmetics	www.fushi.co.uk	UK
LUSH UK	Cosmetics	www.lush.co.uk	UK
Origins	Cosmetics	www.origins.com	USA
ANTESITE & NOIROT	Drinks	https://antesite.com	France
Pernod Ricard	Drinks	www.pernod-ricard.com/en/brands	France
Frontier Natural Food Co-op	Food	www.frontiercoop.com	USA
Katjes	Food	www.katjes.com	Germany
Panda	Food	www.pandalicorice.com	Finland
Mountain Rose Herbs	Herb ingredients	www.mountainroseherbs.com	USA
Starwest Botanicals	Herb ingredients	www.starwest-botanicals.com	USA
A.Vogel	Herbal supplements and wellness	www.avogel.co.uk	UK
Banyan Botanicals	Herbal supplements and wellness	www.banyanbotanicals.com	USA
Better Being Company	Herbal supplements and wellness	www.betterbeing.com	USA
Cytoplan	Herbal supplements and wellness	www.cytoplan.co.uk	UK
Gaia Herbs	Herbal supplements and wellness	www.gaiaherbs.com	USA

COMPANY NAME	SECTOR	WEBSITE	COUNTRY
Herb Pharm USA	Herbal supplements and wellness	www.herb-pharm.com	USA
Herbalist Alchemist	Herbal supplements and wellness	www.herbalist-alchemist.com	USA
Natures Aid	Herbal supplements and wellness	www.naturesaid.co.uk	UK
Nature's Sunshine	Herbal supplements and wellness	www.naturessunshine.com/us	USA
Now Health Group	Herbal supplements and wellness	www.nowfoods.com	USA
Pure Synergy	Herbal supplements and wellness	www.thesynergycompany.com	USA
St. Francis Herb Farm	Herbal supplements and wellness	www.stfrancisherbfarm.com	Canada
Viridian	Herbal supplements and wellness	www.viridian-nutrition.com	UK
Clipper	Tea	www.clipper-teas.com	UK
Dilmah Tea	Tea	www.dilmahtea.com/herbal-infusion-tea/tisane	UK
English Tea Shop	Tea	www.etsteas.co.uk	UK
Good Earth	Tea	https://goodearth.com	USA
Hari Tea / Shoti Maa	Tea	www.haritea.com	Netherlands
Heath and Heather	Tea	www.heathandheather.co.uk	UK
Lebensbaum	Tea	www.lebensbaum.de	Germany
Sonnentor	Tea	www.sonnentor.com/en-gb	Austria
Twinings	Tea	http://twinings.co.uk	UK
Yogi Tea	Tea	www.yogitea.com/en	USA
Zonnatura (Wessanen)	Tea	http://zonnatura.nl	Netherlands

List of European and American traders and processors that import liquorice

COMPANY NAME	WEBSITE	COUNTRY	TYPE
Aromaplant	www.aromaplant.de	Germany	Trader
Complemedis	https://complemedis.ch	Switzerland	Trader
EK Rizotomos	www.ekrizotomos.com	Italy	Trader
Flavex	www.flavex.com	Germany	Processor
Hälssen and Lyon	www.haelssen-lyon.de	Germany	Processor
High Quality Organics	www.hqorganics.com	USA	Processor
Kräuter Mix GmbH	www.kraeuter-mix.de	Germany	Trader
L'Herbier du Diois	www.herbier-du-diois.com	France	Trader
Martin Bauer	www.martin-bauer.com/en	Germany	Trader
MedHerbs	https://medherbs.de	Germany	Trader
Natural Origins	www.mynaturalorigins.com/en/	France	Trader
Nimeks	https://nimeks.com.tr	Turkey	Trader
Organic Herb Trading	www.organicherbtrading.com	UK	Trader
Pure Ground Ingredients	https://puregroundingredients.com	USA	Trader
Vidya Herbs Pvt. Ltd.	www.vidyaherbs.com	USA	Trader
Wollenhaupt Tee	www.wollenhaupt.com/en	Germany	Trader
Worlee	www.worlee.de/en	Germany	Trader

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Sitz der Gesellschaft / Registered offices
Bonn und Eschborn / Bonn and Eschborn

Friedrich-Ebert-Allee 36 + 40
53113 Bonn, Deutschland / Germany
T +49 228 44 60-0
F +49 228 44 60-17 66

Dag-Hammarskjöld-Weg 1 - 5
65760 Eschborn, Deutschland / Germany
T +49 61 96 79-0
F +49 61 96 79-11 15

E info@giz.de
I www.giz.de