# Talent Retention for Rural Transformation - Adapt (TRTP-Adapt)

# Environmental Social Management Plan

## List of Acronyms

| | |
|---|---|
| AF | Adaptation Fund |
| CA | Conservation Agriculture |
| CC | Climate Change |
| CEDAW | Convention on the Elimination of All Forms of Discrimination against Women |
| CHIRPS | Climate Hazards Group InfraRed Precipitation with Station data |
| CPIU | Consolidated Project Implementation Unit |
| ESMP | Environmental and Social Management Plan |
| FAO | United Nations Food and Agricultural Organisation |
| GDP | Gross Domestic Product |
| GoM | Government of Moldova |
| HDI | Human Development index |
| IFAD | International Fund for Agricultural Development |
| ILO | International Labour Organisation |
| KM | Knowledge Management |
| MARDE | Ministry of Agriculture and Rural Development |
| M&E | Monitoring and Evaluation |
| NPCA | National Programme for Conservation Agriculture |
| SADI | Small Area Deprivation Index |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |

## I. Summary Description of the Project.

1. Moldova is a lower middle-income country with a GDP per capita of USD 2,290 in 2018. It ranks 112 out of 189 in the global Human Development Index (HDI). Moldova is one of the poorest countries in the European neighbourhood region, but has also been one of the fastest growing. However, the country has made progress in reducing poverty. The absolute national poverty rate fell from its peak of 73% in 1999 to 9.6% in 2015, and the extreme poverty rate declined from 59.7% to 0.2% in the same period. However, large gaps remain between urban and rural areas. In 2018 growth reached 4.8% benefitting from strong domestic demand. The share of agricultural in the Gross Domestic Product was estimated to be 12 percent in 2017, with 17.88 percent being contributed by industry and 55.36 percent by the service sector. Together with agriculture, the processing industry represents more than 17 percent of the Gross Domestic Product and approximately 45 percent of total exports.

2. **Poverty** is particularly found among landless people, small and medium-scale farmers, entrepreneurs, and people engaged in agro-processing in rural areas and small towns. In general, rural people are more vulnerable to poverty due to high (farm) income volatility and a strong dependence on remittances (World Bank & World Food Programme, 2015). The poor tend to live in larger households with higher dependency rates. In addition, their educational level is relatively low: many have not completed secondary education (Davalos & Meyer, 2015). The heads of almost 70 percent of all poor households are employed, yet their wages are too low to enable their households to leave the poverty zone. Poverty and food energy deficiency are particularly high among those who strongly depend on agriculture. In 2013, farmers and agricultural workers together account for 40 percent of Moldova's poor (World Bank, 2015b; World Bank & World Food Programme, 2015). In the current period of economic transition, the agricultural sector fulfils an important role of social support due to the fact that a large mass of migrants may return to agriculture because of the lack of better employment opportunities. In addition, agriculture further provides jobs and livelihoods for rural residents, thus mitigating considerably the adverse consequences of the aging population. In Moldova, the agriculture sector still accounts for 30 percent of employment, with an additional 24 percent engaged in low-intensity agricultural work. Also the agriculture fulfils an important social function by reducing the danger of increasing poverty and social exclusion in rural areas of Moldova.

3. **Agriculture** is a central pillar of the Moldovan national economy and the main source of livelihood in rural areas. It contributes close to 14 percent of the country's GDP (down from 20 percent in 2004), a figure that increases to 17 percent if the food processing industry is taken into account. Important crops are winter and spring grains, including wheat, barley and maize, as well as potatoes and other vegetables and horticultural crops and fruit. Approximately 75 percent of the population live in rural areas and depend on agriculture and related activities for their livelihoods. About 60 percent of the country's agricultural output is produced by individual farmers and household plots of 10 hectares or less.1 Agricultural output has been subject to high volatility and slow growth, driven by external weather-related factors and since 2000 agriculture has been showing much slower and unstable growth patterns than the rest of the economy. Climatic conditions have been the dominant factor with droughts becoming quite common in recent years. Crop production is particularly vulnerable to climate distress with the years of severe droughts in Moldova (2003, 2007, 2009 and 2012) have had a disastrous effect on general crop production. Agricultural ecosystems cover 75 percent of the country, but there are indications that 34 percent of agricultural lands are eroded to some degree. Intensive agricultural practices, such as overuse of pesticides, fertilizers, heavy machinery, and excessive irrigation have led to degradation, erosion, compaction of black soils and desertification is even starting in several parts of the country.

4. **Climate change**. Moldova ranks as the most climate vulnerable country in Europe.[2] Temperature and rainfall have increased in Moldova over the last century, and severe floods and droughts have been occurring with increasing regularity. During 1984-2006 period, Moldova's average annual economic losses due to natural disasters were about USD 61 million. This trend had changed significantly recently with the 2007 and 2012 droughts having caused losses estimated at about USD 1 billion[3] and USD 290 million respectively. Moldova has also been significantly impacted by floods that in 2008 cost the country around USD120 million and in 2010 around USD 42 million in damages.[4]

[1] FAO. Moldova and FAO partnering to achieve sustainable food systems. http://www.fao.org/3/a-az519e.pdf
[2] According to the ND- GAIN1 vulnerability assessment methodology: https://germanwatch.org/en/cri
[3] World Bank (2016) Moldova Climate Adaptation Investment Planning Technical Assistance.
[4] Republic of Moldova 2020 Climate Change Strategy.

5. **Project Approach.** To address the aforementioned challenges the Talent Retention for Rural Transformation Project - Adaptation Component (TRTP-Adapt) will be focused on those areas that have been identified as being most climate vulnerable. This will be achieved by overlapping the historical precipitation analyses from the Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS) and the Small Area Deprivation Index (SADI), a composite indicator of 8 indicators[5] that shows the development level of a local community, covering all rural communities in Moldova. The project will target around 5,000 poor and climate vulnerable households over the five-year duration benefitting around 16,000 people given an average household size of 3.2 in rural areas. The project will target 40 percent women and 50 percent youth but also adult male smallholder farmers. The youth definition will be male up to 35 and female up to 40. This decision was made to balance out the gender-discriminatory practices that include significant wage disparities, segregation into lower-paying occupations, unequal sharing of work and family responsibilities and limited access to childcare. Women also work more in low value-added agricultural production sub sectors, operate on a smaller scale, and more likely to work as family workers. Women as well as youth entrepreneurs face barriers getting access to bank loans and to state-funded business and entrepreneurship development programmes.

6. The TRTP-Adapt project will assist smallholder famers through training in the use of techniques that inter alia help improve soil water storage, control erosion, improve soil structure, and boost nutrient management. Based on the United Nations Food and Agricultural Organisation (FAO) lessons learned the project will train and provide demand driven advisory services in irrigation systems, regimes and water quality; simple entry accounting and fiscal reporting; and in expenditures and revenues of improved irrigation systems as well as provide grants for the purchase of water-efficient irrigation systems. The AF resources will also be used to address an important need identified by MARDE to help in the development of a national curricula for Conservation Agriculture and its introduction in some of the main universities in the country. The AF will also develop national capacity in Conservation Agriculture (CA) by training Conservation Agriculture specialists and by undertaking a nationwide inventory of the extent and types of CA techniques that are being practised in the country. These are expected to help improve understanding regarding adoption rates of different CA technologies and techniques and in further refining and developing GoM policy in this regard.

7. The project will be formed around the following components:

   Component 1: Capacity development to integrate Climate Change (CC) adaptation into agriculture production systems. This component will build the capacity of individual farmers to adopt climate-resilient agronomic systems and technologies to improve water efficiency while simultaneously improve productivity and reduce production costs. Farmers will also be trained on climate adaptive techniques that include understanding the impact increased drought stress can have on their particular crops and provide simple solutions that they can adopt to minimise damage for example summer pruning and tree thinning to reduce water stress during droughts; techniques on how to best apply fertilisers to avoid leaf damage; using mulch to prevent soil evapotranspiration; and learn about the benefits of drip irrigation etc. The project will also provide solutions farmers can adopt to minimise damage from increasingly frequent torrential rain including drainage options, laying of gravel to increase soil water uptake and reduce erosion. The outcomes of component 1 will be: i) increased capacity of beneficiaries on climate change adaptive techniques; ii) technical capacity of agricultural practitioners developed to integrate knowledge on climate resilient systems and technologies into practice; iv) building of CA professional service provider capacity with a focus on smallholders; and v) Knowledge management.

   Component 2: On- and off-farm climate resilient technologies for water supply, irrigation and improved land management techniques. This component will support a proactive, gender and climate vulnerable focused outreach targeting campaign; investments in climate-proof water infrastructure by co-financing the TRTP tertiary last-mile canal construction, provide farmers with grants to support them in purchasing the climate-smart irrigation technologies they need to increase water efficiency and farm productivity. The outcomes of this component will be i) climate resilient off-farm access to water from tertiary canals secured from rivers and water harvesting ponds; and ii) demand-driven and beneficiary co-financed on-farm water conservation management and adaptive techniques implemented.

   Component 3: Developing a national framework for Conservation Agriculture, this component will help develop the new MARDE National Programme for Conservation Agriculture (NPCA). It will do this by carrying out a national survey of CA adoption in Moldova, mainstreaming CA into the national

[5] See Annex 4 for detailed information on the indicators

educational system as well as supporting an agricultural research institute and CA professionals to put a greater focus on CA. The outcomes of this component will be i) Developing a national overview and charting a future course for CA in Moldova; ii) Mainstreaming CA into the national educational system; and iii) Supporting research into CA with a focus on smallholders and women.

8. The project design was assessed AF Environmental and Social Policy (ESP) and designed to maximize impact in a cost-effective manner. The proposed irrigation activities have been previously tested in a FAO pilot in Moldova, and IFAD has also previously successfully constructed tertiary irrigation canals in Moldova and have proven their effectiveness in helping farmers adapt to climate change, improve agricultural productivity while reduce production costs, as well as use limited natural resources sustainably.

9. TRTP-Adapt is aligned to national legislation and policies on agriculture, water management, climate change adaptation, desertification, gender equality and woman's rights, land management, natural resource management among others. The project is aligned with the National Development Strategy 2020; the National Strategy on Agriculture and Rural Development (2014-2020); and the National Environment Strategy 2014-2023 among others.

10. Project implementation will rely on existing government processes and structures that will be a fundamental part of the TRTP-Adapt ESMP. TRTP-Adapt will be fully integrated into the TRTP led by the Ministry of Agriculture, Rural Development and Environment. A Consolidated Programme Implementation Unit (CPIU) is already established and will be responsible for overseeing project implementation with financial and project risks being assessed on an on-going basis throughout implementation.

## II. Screening and Categorisation.

11. The Environmental and Social Screening presented here below identified some minor risks, but mitigation measures have been integrated into the project, which has therefore been categorised as a category B project. This section provides an analysis of the environmental and social impacts and risks identified as being relevant to the project and proposes a management plan that will screen ESPs, mitigate risks, and report to the Adaptation Fund. These primarily relate to the small-scale tertiary irrigation infrastructure under outcome 2.2 that the TRTP-Adapt will co-finance with the TRTP, as well as the risks posed by water extraction activities under outcome 2.3, for the use of new water sources for on-farm irrigation. The following table provides a brief overview of the potential risks the project poses in relation to the 15 Environmental and Social Principles, this is followed by a detailed environmental and social risk assessment.

Figure 1 Overview of Environmental and Social Risk Assessment

| Checklist of environmental and social principles | No further assessment required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|---|---|---|
| **ESP 1 Compliance with the Law** | X | **No risk** |
| **ESP 2 Access and Equity** | X | **No risk** |
| **ESP 3 Marginalized and Vulnerable Groups** | X | **No risk** |
| **ESP 4 Human Rights** | X | **No risk** |
| **ESP 5 Gender Equity and** | X | **No risk** |

| Checklist of environmental and social principles | No further assessment required for compliance | Potential impacts and risks – further assessment and management required for compliance |
|---|---|---|
| **Women's Empowerment** | | |
| **ESP 6 Core Labour Rights** | X | **No risk** |
| **ESP 7 Indigenous Peoples** | X | **Not applicable** |
| **ESP 8 Involuntary Resettlement** | X | **Not applicable** |
| **ESP 9 Protection of Natural Habitats** | | **Low risk –** All protected natural habitats in the project areas will be mapped, avoided and reported on in the PPR as part of the ESMP. |
| **ESP 10 Conservation of Biological Diversity** | | **Low Risk -** Through the ESMP the project will identify and report on in the PPR as part of the ESMP, if any protected critical biological diversity exists in the project areas and propose mitigation measures. |
| **ESP 11 Climate Change** | X | **No risk** |
| **ESP 12 Pollution Prevention and Resource Efficiency** | | **Possible risk for outcome 2.2**<br>- There is a risk that water used as a result of the outcome 2.2 tertiary canals (through the TRTP programme) from rivers or rain water reservoirs is not used efficiently.<br>**Possible Risk for outcome 2.3**<br>- There is a risk that the project activities will promote the use of a limited resource exacerbating stress on that resource.<br>**Actions required:** Refer to Section II – E and ESMP in annex 3 |
| **ESP 13 Public Health** | X | **No Risk** |
| **ESP 14 Physical and Cultural Heritage** | | **Low risk -** All cultural heritage sites in the project areas will be mapped, avoided and reported on in the PPR as part of the ESMP. The project will ensure whether there are any national cultural heritage sites in the project areas and propose measures to avoid any alteration, damage, or removal of physical cultural resources, cultural sites, and sites with unique natural values. |
| **ESP 15 Lands and Soil Conservation** | X | **No risk** |

**Principle 1: Compliance with the Law.**

12. No further assessment of potential impacts and risks is required for compliance with the law, since the project complies with all relevant national legislation and policies on agriculture, water management, climate change adaptation, employment, women's rights, among others. As mentioned in section 'II-E':

    - The project responds to: i) the sustainable, green economic and sustainable development principles aimed at poverty reduction of the National Development Strategy 2020; ii) support the National Strategy on Agriculture and Rural development 2014-2020 to help the agri-food sector contribute to the sustainable achievement of the national economic and social development through modernisation to improve living and working conditions in rural areas by creating synergies between agri-food activities and the natural environment.

- The project has mainstreamed an environmental and social management plan into the review and approval process with direct GoM oversight, that ensures it is compliant with legal requirements. Specifically, the project is compliant with: i) Water Law 272 that sets the legal basis for efficient management, protection and conservation of water; ensures sufficient water supply of qualitative surface water; regulates prevention of flooding, erosion, drought and desertification, and water abstraction, water supply and effluent wastewater discharge. ii) National Strategy on Adaptation to Climate Change (2020) aims to ensure that the social and economic development of the Republic of Moldova becomes resilient to the future impacts of climate change.
- Gender Equality Strategy 2016-2020 has also been mainstreamed throughout the project both in exceeding gender targets vis-à-vis their official representation in the rural agricultural labour force. This compensates for the inherent disadvantages women face in the workforce and the fact more women work in low value-added agricultural production sub-sectors and also face discriminatory practices that include significant wage disparities, segregation into lower-paying occupations and unequal sharing of work and family responsibilities.

13. IFAD has since 2007 built a close operating relationship with the GoM to ensure that relevant authorities are not only being consulted, but are also directly involved in the project approval process and ensuring that the national laws and policies are being correctly applied. Where this involves the application of technical standards (outcomes 2.2 and 2.3), the process has been detailed in section 'II-E' of the project document as well as in section 'II-A'. Specifically:

- MARDE as the combined Ministries for Agriculture, Rural Development and Environment will be the main institutional focal point for the project. It will chair the Selection Committee that oversees the project. It will be responsible for ensuring inter-alia water management issues, including the application of the national technical standards and regulations regarding the rehabilitation and maintenance of the tertiary irrigation as well as applications for on-farm irrigation (outcome 2.2 and outcome 2.3) are being applied.
- As a legal requirement and as part of the application process and as detailed in section 'II-E', the water agency Apele Moldovei will play a central role in reviewing and providing qualified opinions for all water infrastructure applications. It will assess the proposed water sustainability for the source of water and usage being requested vis-à-vis the number of users, type of usage and total volumes being requested. As a precondition for the grant application being reviewed by the SC, the beneficiary will have to have their prefeasibility study reviewed and approved on the basis of which the necessary water permits will be issued before the Selection Committee gives final approval. The permits are issued by the Department of Environment within MARDE.

14. Applicable laws and responsible enforcing agencies are summarised below.

| Concern | Law Legislation | Enforcing Agencies | Enforced Regulation / Item |
|---|---|---|---|
| Water Permit | Water Law (No. 272) | MARDE, Apele Moldovei | Approval of water extraction |
| Construction Permit | Law on permits for construction works (No. 163) | State Verification Enterprise | Verification of proposal and approval of construction permit |
| Unsustainable Water Use | Water Law 272<br>Law on Peasant Farm 1353 | MARDE, Apele Moldovei | Established and MARDE endorsed project approval procedures as detailed above. |

| Concern | Law Legislation | Enforcing Agencies | Enforced Regulation / Item |
|---|---|---|---|
| Pesticides and Fertilisers | Law on Environmental Protection | MARDE | Approval of permissible pesticides. |
| Wildlife Conservation and National Parks | Land Code 828 | MARDE | Declaration of Ecologically critical areas<br>Declaration of Protected areas. |

**Principle 2: Access and Equity.**

15. No further assessment of potential impacts and risks is required for compliance with access and equity since the project will not reduce or prevent communities in the targeted areas from accessing basic services. The project will take a number of transparent steps that will help ensure that the benefits of the project are being distributed fairly with no discrimination nor favouritism. Primarily, project targeting has been agreed with the government and comprises targeting criteria based on gender and age quotas, but also on geographical targeting based on a climate vulnerability assessment made by the project in terms of publicly available precipitation records as well as publicly available poverty and 'deprivation' records compiled by the government comprising 8 indicators described in annex 4. These areas will be the project's primary geographical areas that the project will focus on. The project will advertise broadly through the mass media (radio, social media, town hall meetings, workshops etc.) for the implementation of an outreach/mobilisation strategy that will target these geographic areas on a first come, first serve basis. Beneficiaries will be explained as they have been throughout the participatory and gender-balanced consultations during the design, that this is a project with a strong focus on women and youth, but that also adult men will also be eligible to provided that they are from the targeted geographical areas and that they own and cultivate no more than 10 ha of arable land.

16. The Service Provider will also be selected as will the beneficiaries, based on clear selection criteria designed to get the SP with the most relevant experience and for the latter to ensure the project is reaching the desired target communities. The academic CA scholarships in outcome 3.2 will be chosen in a transparent and meritocratic fashion overseen by the CPIU. In partnership with the Agrarian University and on the basis of a competitive exam and evaluation process, one male and one female candidate will be supported to study a CA master course in a European or other university with competitive admission and living costs. The design of the selection process and exams will be reviewed by a review panel comprising at least four members.[6]

17. Equity of access has been further ensured through the revision of IFAD's grant payment mechanisms in Moldova that were designed against the possibility of fraud. The TRTP-Adapt target group are the rural poor and many of who are unable to pay the full grant plus 30 percent co-finance upfront and reimbursed by the project based on proven contractual agreements with equipment suppliers. Instead, the project with AF support in coving the USD 150 in bank fees, will assist those farmers that wish to benefit from the USD 2,500 grant but are unable to pay the money upfront to set up an escrow account managed by a bank, wherein the CPIU and the beneficiary will pay the respective amounts. The bank will then carry out all the required contractual verifications with the supplier and transfer the funds.

**Principle 3: Marginalised and vulnerable groups.**

18. **Targeting.** A targeting specialist was part of the TRTP and TRTP-Adapt design team, who did a poverty, targeting and gender assessment in the targeted governorates. The specialist collected information and undertook consultations with a number of marginalized and vulnerable members of the local communities – women, elderly people, young unemployed, to understand their socio-economic constraints, and identify the most suitable specific adaptation activities that can benefit these groups. The baseline will further detail and the refine the marginalised and vulnerable groups, and tailor capacity

[6] Programme Director, Climate Specialist, Procurement Specialist and a representative of the State Agrarian University.

development activities in different languages (for the internally displaced) to help minimize the imposition of disproportionate adverse climate change impacts on marginalised and vulnerable groups.

19. The TRTP-Adapt target group are those communities that are disproportionately vulnerable to climate change. This will be determined both on the basis of rainfall patterns but also in capturing those that are most vulnerable in society with fewer economic opportunities.[7] Targeting will have a focus on youth and women with 50 percent and 40 percent quotas respectively as the TRTP and TRTP-Adapt projects are primarily designed to generate youth employment opportunities in rural areas to stem the flow of outmigration. Women targeting will furthermore be strengthened to reflect the gender-related challenges they face in the labour force with gender discrimination, lower-paid jobs and expectations of family responsibilities with a definition of youth that is up to 40 for women and 35 for men.

20. **Youth.** The TRTP project focuses on youth as a vulnerable group because: (i) emigration from Moldova is the eleventh highest in the world, two thirds of the people who left the country are from rural areas and most of those are young people[8]; (ii) young entrepreneurs are often limited by access to short-term finance due to their limited credit history, limited business skills, and lack of any form of "hard" collateral; and iii) in Moldova, about 30 percent of young people are either unemployed or not enrolled in any formal training.

21. **Women** are considered a disadvantaged and vulnerable category in Moldova as around 36 per cent of landholders in Moldova are women, but these holdings account for only 19 per cent of agricultural lands. Women in Moldova manage smaller plots of land than men and on average have less livestock than men do. The average size of men's plot is 1.21 ha compared to 0.86 ha managed by women; the proportion of landholders with no education in agriculture is slightly higher for women at 82.2 per cent compared to men's 79.5 per cent[9]; nationwide, women account for only 27.5 per cent of entrepreneurs; in rural areas this drops to 14.9 per cent. The gender pay gap in Moldova is also noticeable, with women receiving pay at about 26 per cent lower level than men for the same work performed. In addition, women undertake a high load of unpaid work due to discriminatory social norms. Women in Moldova average 4.9 hours per day per person, when the average of women in the Organisation for Economic Cooperation and Development (OECD) countries allocating 2.8 hours a day for household work.

22. **Design.** A targeting and gender specialist was part of the design team, who did a poverty, targeting and gender assessment in the targeted governorates. The specialist collected information and undertook consultations with marginalized and vulnerable members of the local communities to understand their socio-economic constraints, and identify the most suitable specific adaptation activities that can benefit these groups. The project activities have been designed to address these needs and will not therefore have any expected negative impacts on the identified vulnerable groups.

23. **Monitoring**. The TRTP-Adapt M&E system will be fully integrated with that of the TRTP that will have a dedicated M&E officer. The system will collect gender and age disaggregated area and monitor investments in high poverty and climate vulnerability Raions (regions) and Primarias (villages). The maps of the Small Area Deprivation Index for Primarias and the climate vulnerability map will function as an important tool for targeting and tracking targeting. Project management will be supported through including responsibility for implementing targeting methodologies and achieving targets in the Terms of Reference of managers and specialists in the CPIU. The targeting strategy will be discussed in the start-up workshop and supervision missions will include a poverty and social inclusion expert.

**Principle 4: Human Rights**

24. No further assessment of potential impacts and risks is required for compliance with human rights since the project is designed to respect and adhere to the requirements of all relevant conventions on human rights in compliance with the ESP. Among the Guiding Values and Principles for IFAD's Social Environmental Climate Assessment Procedures (SECAP), is the principle to "support borrowers in achieving good international practices by supporting the realization of United Nations principles expressed in the Universal Declaration of Human Rights and the toolkits for mainstreaming employment and decent work".

25. Moldova has ratified thirteen human rights Conventions including against torture; civil and political rights; convention on the elimination of discrimination against women; racial discrimination; rights of the child; and persons with disabilities. Moldova also does not have any pending human rights issues with

[7] Refer to figures 17 and 18 for more information.
[8] http://www.md.undp.org/content/moldova/en/home/blog/2018/making-the-most-of-emigration.html
[9] National Bureau of Statistics of the Republic of Moldova 2014

the Human Rights Council Special Procedures. Any observed human rights violations will be reported through the project grievances procedures.

**Principle 5: Gender Equity and Women's Empowerment.**

26. **Analysis.** Moldova has made international and national commitments to promote gender equality and the empowerment of women, in particular by ratifying the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and various International Labour Organisation (ILO) Conventions. Since the adoption in 2006 of Law No. 5 on Equality of Opportunities for Men and Women, a series of national strategies and action plans have promoted gender equality. In 2016, a law on temporary special measures introduced a 40% quota for each gender in cabinets and electoral lists, and provisions for paternity leave together with a ban on sexist advertising. However, implementation of gender equality measures lags. Women still face discrimination and inequality in social, economic and political life and their representation in Moldovan politics and decision-making remains below international benchmarks.

27. Women in Moldova face specific education and labour market barriers. Persistent patriarchal attitudes limit their educational choices and employment options. Women also face discriminatory practices. These include significant wage disparities, segregation into lower-paying occupations, unequal sharing of work and family responsibilities and limited access to childcare. Women entrepreneurs face barriers getting access to bank loans and to state-funded business and entrepreneurship development programmes.

28. **Design.** The IFAD's poverty targeting and gender sensitive design and implementation guidelines were applied for the design of the project. A targeting and gender specialist was part of the design team, who did a poverty, targeting and gender assessment in the targeted areas and women and youth are given a central role in the project. In order to overcome any potential risks related to this principle, the project has developed a very proactive strategy for the participation of women in project activities. Gender has been integrated into project design by a gender and targeting specialist, who did a poverty, targeting and gender assessment. Specific gender objectives, activities, dis-aggregated targets and budget allocations have been defined, and the selection criteria for the service provider includes women staff to ensure outreach to women and integrate gender aspects.

29. **Inclusion.** Young women up to 40 years of age (and men up to 35) will qualify for TRTP-adapt (and TRTP) support. The definition of youth in Moldova includes young persons from the age of 16 to 35.[10] Women, for the purposes for the IFAD projects in Moldova qualify as youth up to the age of 40. This is to create a more level field for women who often have to opt out of economic activities due to their responsibilities for childcare. The social inclusion strategy of TRTP-Adapt aims to empower vulnerable women, youth and men smallholder farmers by expanding their economic opportunities, access to climate resilient technologies and technical knowledge in agriculture to better adapt to the challenges of climate change, but through the IFAD project also to access credit. It is expected that a minimum of 40 per cent of AF project beneficiaries will be women, and 50 per cent will be youth. The project will have the following targeting measures in place: sensitization of implementers to the strategic interests and needs of smallholder farmers, women and youth; direct targeting through quotas to ensure participation in project–related activities for women, youth and smallholders; appropriate mobilisation and operational measures to address specific constraints faced by women, youth and poorer smallholder farmers; geographical targeting through selection criteria which prioritize youth, women and small-holder farmers and entrepreneurs from climate vulnerable and poorer areas of Moldova.

30. As the TRTP project is national in scope, the geographical targeting does not limit project interventions to a specific geographic area but prioritizes interventions in the more climate vulnerable and deprived areas throughout the country based on the SADI (Small Area Deprivation Index) and the Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS).[11] The project's M&E system will be based on the maps, the collection of gender and age disaggregated area data and the monitoring of investments in high poverty and climate vulnerability Raions (regions) and Primarias (village areas). Furthermore, project management will include responsibilities for implementing targeting

[10] The Law on Youth No. 215 of 29 July 2016 is the national legal act that defines youth age in the Republic of Moldova. Chapter I, General Disposals, Article 2 defines a young person – a person aged between 14 and 35 years old.

[11] http://chg.geog.ucsb.edu/data/chirps/

methodologies and achieving gender targets. The targeting strategy will further be discussed in the start-up workshop and supervision missions and will include a poverty and social inclusion expert.

**Principle 6: Core Labour Rights.**

31. The project will not negatively affect Core Labour Rights.

32. Moldova has been a member of ILO since 1992 and has ratified 30 Conventions of which 8 of 8 fundamental conventions. The ILO is currently working with Moldova on its reporting obligations on ratified Conventions over 5 years and reply to CEACR comments as well as the 'General Survey reporting on certain instruments related to the strategic objective of employment' and on the 'Social Protection Floors Recommendation, 2012 (No. 202)'.

33. The 2019 Report of the Committee of Experts to the 180th International Labour Conference, on the Application of Convention and Recommendations reported on the Application of International Labour Standards in Moldova made recommendations that relate primarily to allowing for ILO inspections. The Committee further notes with regret that only two reports have been received of the 13 requested (11 reports are still due on fundamental, governance and technical Conventions). The Committee hopes that the Government will soon submit all its reports in accordance with its constitutional obligation and that they will respond to the Committee's comments. The ILO has in 2016 however provided technical assistance in the consultations to increase of the minimum wage, improve collective bargaining skills and enhance the ability for service delivery and improved protection of migrant workers.

34. Activities throughout the project are targeted at reducing inequality and raising gender awareness for gender equality to overcome traditional stereotypes regarding the role of women in society. Positive discrimination in favour of women will be used to provide fair and equal opportunity to women who seek employment as labour and gain from wages earned. The project will furthermore create climate resilient employment enabling marginalised and vulnerable groups including unemployed youth and women to raise their income. The relevant international and national labour laws guided by EU and ILO labour and standards will be followed throughout project implementation. The project will respect, promote, and realize the principles mentioned in the ILO Declaration of Fundamental Principles and Rights at Work, and ensure that they are respected and realized in good faith by the Executing Entity and other contractors.

35. IFAD has a longstanding partnership agreement with ILO dating back to 1979. The Project will furthermore not engage child labour in any of its activities. The prohibition of child labour will be part of the agreement with the beneficiaries and will be a non-negotiable provision of the agreement. Furthermore, IFAD has as part of IFAD's Rural Youth Action Plan 2019-2021 (RYAP), an ongoing partnership with the International Partnership for Cooperation on Child Labour in Agriculture (IPCCLA). IFAD has been involved in collaboration with United Nations and non-United Nations entities to advocate against child labour in agriculture, and contributed to the preparation of a policy brief entitled "Breaking the rural poverty cycle: Getting girls and boys out of work and into school". IFAD is also an equal opportunities employer and as such it works to ensure that all its projects are free of discrimination in respect of employment and occupation. The project design ensures quotas for women and youth participation and transparent processes for recruitment as well as raising awareness raising about women and youth participation in decision making processes.

**Principle 7: Indigenous Peoples**

36. As there are no indigenous groups in Moldova, the project will not involve any particular indigenous group. This aspect does not seem to be of relevance in terms of further assessment for ESP compliance.

**Principle 8: Involuntary Resettlement**

37. As no involuntary resettlement is foreseen in any circumstance during project implementation, this aspect does not seem to be of relevance in terms of further assessment for ESP compliance.

**Principle 9: Protection of Natural Habitats**

38. The project is not expected to have any negative impact on critical natural habitats.

39. The project areas will be defined as a result of the mobilisation activity that will be carried out based on the climate vulnerability and SADI maps[12]. It is at point of design not possible to specify exactly where the project will take place, however every effort will be made to avoid the natural habitat areas that are considered critical. To this effect and as part of the ESMP, the project together with the Department of Environment within MARDE will identify and report on the national critical habitat areas. The project will monitor that the project implementation will not encroach or affect them in any way and propose risk mitigation measures should there be an identified risk.

**Principle 10: Conservation of Biological Diversity**

40. The project is not expected to have any negative impact on critical biological diversity.

41. The project objectives and activities are designed to support water conservation and promote soil conservation practices as means of adapting to the weather extremes that are increasingly being felt as a result of climate change. The project will support a national review of the current state of Conservation Agriculture so as to be able to inform future policy development. Also, as result of activities aimed at improving soil conservation practices in outcome 2.2, the project is expected to see improvements in soil water retention, structure and microbiomes. These activities will be further studied as part of the knowledge management activities and knowledge products produced for the general public to raise awareness as their positive impacts and general importance. The mainstreaming of Conservation Agriculture into the national higher educational system will further promote the long-term conservation of soils as will the research grants that the project will make available to a research institution. All these activities are designed to support government policy on CA and invest in long-term solutions to protect soils and their biological diversity.

42. At the design stage the specific project activity areas are yet to be defined. It is therefore not possible to identify i) the presence in or near the project area for important biological diversity; ii) any potential of a significant or unjustified reduction or loss of biological diversity. The potential negative impact is assessed as being extremely low as the project will not be introducing known invasive species. However with regards to point i) and ii) the project will integrate screening and mitigation measures into the ESMP in annex 3. It will identify and report on the presence in or surrounding the project area of critical biological diversity. The project will monitor that project implementation will not encroach or affect them in any way and propose risk mitigation measures should there be an identified risk.

**Principle 11: Climate Change.**

43. The project will not have any negative impact on climate change.

44. Moldova's INDC explains the country has experienced an increased number of extreme weather events, such as droughts and floods. An analysis of national climate data revealed that the frequency of droughts in a 10-year time span is 1-2 droughts in the Northern part of the country; 2-3 droughts in the Central part and 5-6 droughts in the South. Their frequency is increasing, especially over the last decades. During the 1990-2014 timespan, 10 years were marked by droughts, which reduced significantly the crop yields. In 1990, 1992 and 2003, droughts continued during the entire vegetation period (April-September). The disastrous droughts of 2007 and 2012 affected over 70 per cent of the territory of the country, being the most severe droughts in the entire instrumental record period.

45. No further assessment of potential impacts and risks is required for compliance with climate change, since this is inherently an adaptation project with activities designed that are based on the adaptive priorities set out in the INDC. These are listed below.

- Raising awareness about climate change and adaptation measures;
- Assisting in reducing climate change vulnerability by at least by 50% and facilitate climate change adaptation in two of the six priority sectors (agriculture and water resources).
- Supporting agricultural research and experimental production better suited to the new climate conditions.
- Assuring increased investments in efficiency of irrigation infrastructure, aqua-technologies and improvement of water resources management;
- Promoting efficient use of water by reducing water losses, improving irrigation techniques, water recycling and storage;

[12] Refer to figures 17 and 18 for more information.

- Improving soil management by increasing water retention to maintain the soil moisture;
- Developing good practice guides for agriculture sector, especially for non-irrigated agriculture;
- Building new infrastructure for transforming water resources into socio-economic ones (e.g.. new accumulation lakes).

46. The project does not promote any drivers of climate change (energy, transport, heavy industry, building materials, large-scale agriculture, large-scale forest products, and waste management), it will therefore not contribute to climate change as it is based on the premise of assisting smallholders to adapt in a climate neutral fashion, in fact one of the long-term benefits of the project is a net reduction in $CO_2$ emissions. The project will introduce water saving technologies and soil management techniques, awareness raising, capacity building, improving access to water and mainstreaming Conservation Agriculture into the technical college and university level curricula. The environmental benefits of CA are well documented as the combination of no-till, mulching, intermediate crops, and crop rotation significantly increases the resilience of rainfed agriculture to drought, improves soil conditions through lowering of soil temperatures, increasing soil humidity and crop yields in comparison with traditional ploughing practices. Through these benefits CA also contributes a number of other environmental co-benefits from the local to global levels. Notably, reduced/no till, agriculture residues as mulching and crop rotation will significantly improve soil carbon stocks and reduce $CO_2$ emissions into the atmosphere. As a result, no further climate change risk assessment is required.

**Principle 12: Pollution Prevention and Resource Efficiency.**

47. It is not expected that the project will pose any significant risks to resource efficiency (water) or pollution risks and no further assessments will be required beyond the procedures already integrated into the project. The two main outcomes 2.2 and 2.3 will largely focus around improved access to water and the latter on promoting water efficient irrigation technologies among other no-regret measures in soil management and adaptive techniques to help reduce crop stress related to drought or torrential rain. One possible aspect that has been addressed in the design of the project is that of water usage in a country that is water insufficient and increasingly prone to serious droughts. Moldova takes water management seriously and has stringent procedures in place that aim to ensure sustainable water consumption. The project has integrated the GoM's water permit system into the grant approval process and the projects Selection Committee that ultimately oversees all grant applications has been mandated by MARDE decree. There are procedures in place that require applicants to prepare feasibility studies that will allow for the relevant authorities to review all the criteria and verify the sustainability of the source of water. This detailed process has been in place in IFAD projects since 2007 and has proven to be viable and not delay the implementation of the project.

48. Beyond the regulatory processes and oversight in place to ensure water usage sustainability, the project is also introducing water saving irrigation technologies such as drip- and micro-irrigation. Drip-irrigation is 40 percent more water efficient than conventional irrigation while also improving crop quality and yields meaning that the crops will be more like to be sold and will not be left to rot as is currently the case in rural villages, which is an improvement in resource efficiency. The use of fertilisers can be of concern however in the feasibility studies required for the water permit, the farmer will need to explain in detail what fertilisers and how much fertilisers they are planning on using as part of the economic feasibility study. This process will allow the government to oversee and advise on the correct chemicals and quantities. IFAD has a long experience in advising on correct fertiliser usage, and farmers will be trained on this as part of the capacity building and the extension support services. Drip irrigation ultimately increases efficiency of water use and allows for a reduction in fertiliser use vis-à-vis the normal agricultural practices that the farmer is already engaged in, which means that there are also reductions in pollution and gains in efficiency made.

49. **Potential risks.** The project will be promoting the use of water in a water insufficient country. There is a risk that the promotion of water use may result in unsustainable practices. This risk has been mitigated through multiple safeguards. Primarily the project will only use water that has been harvested from precipitation or from the two main rivers that cross through the country. Ground water will not be used because it is primarily unsuitable for agriculture in most of the country, and secondly where it is suited (mainly in the south) it is not permitted to use it for irrigation by law. The second safeguard measure has been detailed in section II – E of the proposal and involves detailed compliance with the country's water permit issuing process. The project will be in full compliance with the strict regulations in place that regulate the use of surface and underground water. The government will review all permit requests prior to issuing water permits and assess whether the proposed use is sustainable vis-à-vis the already registered number of users of a particular body of water - whether this be a reservoir, water pond, river

etc. The procedures in place also ensure that the government bodies namely Apele Molodei, is able to monitor water consumption as all water use is metered.

50. The construction of the last-mile tertiary canals may pose some risks. These are also addressed in annex 4, however for the Adaption Fund co-financing beneficiary measures have been put in place to mitigate against the risk of promoting access to water for then there be a risk that the water is used in a non-efficient manner. The TRTP-Adapt has included provisions in the TRTP project document as well as the Project Implementation Manual (PIM) that any smallholders (up to 10 ha) benefitting from this activity will be subject to AF selection criteria and the requirement that this water be used only in conjunction with water efficient irrigation technology - access points to the irrigation network will furthermore also only be made specific to drip and micro-irrigation connectors. The smallholder farmer may already have their own water efficient irrigation system or they will be able to apply for the AF USD 2,500 grant with 30 percent co-finance. The ESMP that will be developed with each proposed application, will include provisions to monitor and report in the progress reports, that AF requirements in water conservation are being adhered to and that technical specifications required by the government for the extraction of water, the construction of tertiary canals are being followed so as to mitigate against pollution risks and resource wasting. Finally, through the promotion of Conservation Agriculture curricula the project will be promoting long-term gains in an agricultural practice that is recognised as being the least polluting and most resource efficient, so much so that the design mission observed larger farms adopting it on a large scale (400ha) to cut costs.

**Principle 13: Public health**

51. The project will not have negative impacts on public health.

52. The WHO[13] explains that many factors combine together to affect the health of individuals and communities. Whether people are healthy or not, is determined by their circumstances and environment. To a large extent, factors such as where people live, the state of their environment, genetics, income and education levels, and our relationships with friends and family all have considerable impacts on health, whereas the more commonly considered factors such as access and use of health care services often have less of an impact. The main overarching determinants of health are:

- The social and economic environment,
- The physical environment, and
- The person's individual characteristics and behaviours.

53. The project is not expected to have a negative impact on public health. The focus of the project is to enhance the access to and improve the efficient use of water as well as teach climate vulnerable farmers on-farm climate adaptive techniques to minimise the adverse impacts of drought and torrential rain. All proposed interventions will also be thoroughly reviewed as per the governing laws and procedures in Moldova that will ensure the sustainable use of water resources. The project is expected to have an overall beneficial impact on the public health with improved access to water, climate-proofed yields and increase quality of produce that will also provide improved food security and nutritional benefits. The project will furthermore improve all the determinants of health presented in the screening table below and as listed by the WHO and is expected to have an overall beneficial impact on the public health with improved access to water, climate-proofed yields and increase quality of produce that will also provide improved food security and nutritional benefits.

Table 1 Health Risk Assessment

| Determinants of health | Health Risks | Mitigation Measures | Impact on Health |
|---|---|---|---|
| Income and social status | Lower income and social status are linked to worse health. | The project will promote drip irrigation that has proven to minimise water consumption, reduce labour costs, increase production yield, and increase sales through better-quality fruit and vegetables. Farms were able to hire more | Positive. |

[13] https://www.who.int/hia/evidence/doh/en/

| | | | |
|---|---|---|---|
| | | people for harvest and improve their livelihoods. | |
| Education | Low education levels are linked with poor health, more stress and lower self-confidence. | The TRTP-Adapt project will assist smallholder famers through training in the use of techniques that inter alia help improve soil water storage, control erosion, improve soil structure, and boost nutrient management.<br>The farmers will also be trained in simple entry accounting and fiscal reporting; and in expenditures and revenues of improved irrigation systems. | Positive. |
| Physical environment | Employment and working conditions – people out of employment are less healthy. | The project will reduce unemployment and increase livelihood possibilities through the provision of grants to the most vulnerable. The grants will be made more accessible through the escrow account that is aimed that the most vulnerable and marginalised, who cannot afford to pay the grant upfront and then be reimbursed. | Positive. |
| Health services | Access and use of services that prevent and treat disease influences health. | Through improved livelihoods and employment, the beneficiaries will have improved access to healthcare that will be beneficial for their health. | Positive. |
| Land use | Changes in land use, soil quality, choice of crop have impact on health. | Improved soil quality as a result of the demo plots as well as the introduction of more climate resilient crop varieties and CA will improve health. | Positive. |
| Unsustainable farming | Unsustainable farming including chemical and energy use, biodiversity, organic production methods, and diversity of foods produced. | The project will promote conservation agriculture which is a sustainable form of farming. The combination of no-till, mulching, intermediate crops, and crop rotation significantly increases the resilience of rainfed agriculture to drought, improves soil conditions through lowering of soil temperatures, increasing soil humidity and crop yields in comparison with traditional ploughing practices. | Positive. |
| Water | Irrigation use and its impact on river/water-table levels and production outputs can have negative impacts on health. | The project will promote water efficient irrigation that will reduce the impact on limited water supplies.<br>A management system is in place to ensure that the irrigation activities are sustainable. Improved access to sustainable water for irrigation will improve health. | Positive. |

Source: https://www.who.int/hia/evidence/doh/en/

**Principle 14: Physical and cultural heritage**

54. Moldova ratified the Convention concerning the Protection of the World Cultural and Natural Heritage in 2002 and has one United Nations Educational, Scientific and Cultural Organization (UNESCO) heritage site namely the Struve Geodetic Arch that is part of a network of 265 observation points stretching represented by two-meter stone cubes, disposed on a relative trajectory between Hammerfest (Norway) and Necrasovca-Veche (Ukraine). This network was designed to

evaluate terrestrial, shape, dimensional dimensions. The UNESCO site in Moldova is located in Rudi, Soroca in the north-East of the country bordering Ukraine.

55. Moldova has a Law on archaeological heritage preservation (no. 218 from 17 September 2010) that opens new perspectives for Moldovan society to improve the situation in the field, and to fight black archaeology and illegal trafficking of antiquities. The specific project areas will be defined upon implementation, the project will therefore as part of the EMSP ensure whether there are any national cultural heritage sites in the project areas particularly in relation Outcome 2.2 and propose measures to avoid any alteration, damage, or removal of physical cultural resources, cultural sites, and sites with unique natural values recognized as such at the community, national or international level.

**Principle 15: Lands and Soil Conservation**

56. The project has been designed in a fashion that reduces any risk posed by it to the environment, it is also not expected to pose any risks to lands as well as promote soil conservation. Moldova is a water insufficient country with about three quarters under high risk of degradation processes. It is estimated that 64 percent of the Moldovan territory can be categorised as dryland with around 85 percent of the population living in the drylands, and around 12 percent of Moldova is classified by the United Nations Convention to Combat Desertification (UNCCD) as being semi-arid and mainly inhabited by the rural poor. Land conservation and the sustainable use of limited water resources while enhancing rural employment and living standards are at the basis of the TRTP-Adapt.

57. The geographical targeting strategy will identify those poorer communities that are most susceptible to changing rainfall patterns and use AF grant money to promote improved access to, and efficient use of, water. The project has incorporated the national processes for regulated water use that are in place to ensure particular sources of water are not unsustainably managed through regulatory oversight. The project will contribute to the TRTP efforts to promote new forms of access to water by constructing tertiary canals (outcome 2.2) to improve access to river water as well as construct rainwater harvesting ponds capable of servicing 200 ha of land. The project will also promote water-efficient irrigation technology (outcome 2.2) for at least 400 climate vulnerable households, such as drip and micro irrigation through the USD 2,500 grant scheme. It will also make any smallholder access to tertiary canal water under outcome 2.2 conditional on the utilisation of water-efficient irrigation technology – either already owned or accessible through the grant scheme.

58. Furthermore, the project will train around 4,600 climate vulnerable households on soil and climate change adaptation management techniques. This will raise awareness about climate change as well as promote well-established low-cost, no regret adaptive techniques for up to 4600 households. The training will help improve soil water storage, control erosion, improve soil structure, and boost nutrient management and will include understanding the impact increased drought stress can have on their particular crops. It will provide simple solutions that they can adopt to minimise damage from drought for example summer pruning and tree thinning to reduce water stress; techniques on how to best apply fertilisers to avoid leaf damage; using mulch to prevent soil evapotranspiration; and learn about the benefits of drip irrigation etc. The activity will also provide solutions farmers can adopt to minimise damage to soils and crops from increasingly frequent torrential rain including drainage options, laying of gravel to increase soil water uptake and reduce erosion. Farmers will also learn about the benefits of organic agriculture and composting to improve soil structure and boost nutrient management etc.

59. The project will also carry out a nationwide survey on the adoption of CA by farmers as it appears that an increasing number of farmers are adopting CA but without any formal guidance on correct practices. The project will support the governments National Programme for Conservation Agriculture by using the information of the survey to launch a CA convention that aims to bring leaders in the field of CA across the spectrum from government actors, academia, technical colleges and the private sector to reach a national consensus on CA that will enable a more structured approach to CA in Moldova. The project will help develop higher-level education curricula aimed at bachelor and master degree programmes and also train professors on CA. The project will also support a research institute to carry out gender and smallholder-focused research into CA with strong links in supporting university students by providing them with hands-on research experience.

## III. Environment and Social Management Plan

60. The project has been designed in full compliance with Moldovan water, environmental and construction laws and relevant safeguard procedures that have been fully mainstreamed into the selection procedures under section II-E of the project proposal and will form the core element of the ESMP and

provide for ongoing screening as and when project areas and activities are being defined. Following the decree by MARDE, the Selection Committee comprises MARDE (agriculture, environment and rural development), the MoE, MoF, IFAD/CPIU and Apele Moldovei that will oversee and approve each proposed investment under component 2. In order for applicants to have reached this final selection phase they will have already had their proposals reviewed and permits approved for construction by the State Verification Enterprise as well as by the Environment Department at MARDE with Apele Moldovei qualified opinions and recommendations, but also been screened and verified by the CPIU review procedure. Applications will have been reviewed and approved on the basis of the technical construction drawings for compliance with construction laws, the source of water being used, the quantity of water being requested to use, the number of users already using the same body of water, the type of activity being proposed and the type and quantity of fertilisers being used. Water usage will be metered and monitored through the national structures in compliance with national laws.

61. The TRTP-Adapt screening identified the activities under outcome 2.2 being implemented by TRTP and co-financed by the Adaptation Fund as requiring further action beyond that which has already been integrated into the grant approval process as described above and detailed in section II-E of the project document. During application screening process (described in outcome 2.1 and section II – E) the CPIU will for all activities under outcome 2.2 therefore also screen for the Adaptation Fund ESPs and applicants will need to prepare an EMSP that mitigates any identified associated risks including ensuring that all smallholders benefitting from this activity co-funded by the Adaptation Fund, will be using micro- or drip-irrigation technologies. The CPIU will conduct the screening of each proposal and an ESMP will be prepared together with the applicant to ensure conformity to the guidelines and this screening process will be part of the scoring of the project interventions under outcome 2.2. The CPIU will work with the applicant through the consultation process described below to ensure the appropriate measures are applied to ensure compliance. Failure to satisfactorily address the risks as defined in the screening will result in the rejection of the application.

62. The project will furthermore also map all the areas of protected natural beauty and cultural heritage and will be reported in the PPR tracker and accompanying report. As part of the PPR tracker the project will also report on all the indicators (including gender and youth), identifying those indicators that are not meeting their targets and propose the corrective measures being taken by the CPIU. Below is a summary management plan and reporting requirements.

Table 2 Summary of reporting and management plan

| ESP | Management Plan and Reporting Requirements |
|---|---|
| **ESP 9 Protection of natural habitats** | **A) The project will identify:**<br>i. The presence in or near the project area of natural habitats, and<br>ii. The potential of the project to impact directly, indirectly, or cumulatively upon natural habitats. |
| | **B) If critical natural habitats exist and there is a potential of the project to impact the habitat, the project will:**<br>i. Describe the location of the critical habitat in relation to the project and why it cannot be avoided, as well as its characteristics and critical value,<br>ii. For each affected critical natural habitat, provide an analysis on the nature and the extent of the impact including direct, indirect, cumulative, or secondary impacts; the severity or significance of the impact; and a demonstration that the impact is consistent with management plans and affected area custodians. □ |
| | **C) Reporting:**<br>It is unlikely the project will have any negative impact on critical natural habitats. The project will therefore conduct the screening and report as soon as the project areas have been determined. In the unlikely event that the project is identified to have a negative impact on critical habitats, the project will develop an ESMP in relation to ESP 9 and monitor and report in the biannual progress reports; annual |

| ESP | Management Plan and Reporting Requirements |
|---|---|
| | supervision reports to IFAD as well as the annual PPR to the Adaptation Fund; MTR and final evaluation and impact assessment. |
| **ESP 10 Conservation of Biological Diversity** | **A) The project will identify:**<br>i. The official national list of threatened flora and fauna species.<br>ii. The presence in or near the project area of critical biodiversity<br>iii. The potential of the project to impact directly, indirectly, or cumulatively upon critical biodiversity. |
| | **B) If critical biodiversity exists and there is a potential of the project to impact the habitat, the project will:**<br>i. Describe the elements of known biological diversity importance in the project area, using any relevant sources of information, such as protection status, status on the IUCN Red List of Threatened Species and other inventories, recognition as a UNESCO Man and the Biosphere Programme reserve[14], Ramsar site,[15]<br>ii. Describe why the biological diversity cannot be avoided and what measures will be taken to minimize impacts. |
| | **C) Reporting.**<br>It is unlikely the project will have any negative impact on protected species. The project will therefore conduct the screening and reporting as soon as the project areas have been determined. In the unlikely event that the project is expected to have a negative impact on biodiversity conservation, the project will develop an ESMP in relation to ESP 10 and monitor and report in the biannual progress reports; annual supervision reports to IFAD as well as the annual PPR to the Adaptation Fund; MTR and final evaluation and impact assessment. |
| **ESP 12 Pollution prevention and resource efficiency** | **A) Water permit.**<br>The project will work with the national authorities to screen and verify the proposed irrigation investments to ensure their sustainability and issue water permits. The water permit management plan has been detailed in section II – E of the proposal. It complies with the national standards surrounding water use as well as the AF ESP. |
| | **B) Off-farm irrigation:**<br>The project will ensure the off-farm irrigation may only be accessed with efficient water irrigation technologies. This will be verified and reported on. |
| | **C) Reporting:**<br>The project will submit biannual progress reports; annual supervision reports to IFAD as well as the annual PPR to the Adaptation Fund; MTR and final evaluation and impact assessment. |
| **ESP 14 Physical and cultural heritage** | **A) The project will identify:**<br>i. The presence in or near the project area of areas of physical and cultural heritage |

[14] United Nations Educational, Scientific and Cultural Organization, www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/man-and-biosphere-programme

[15] Convention on Wetlands of International Importance, called the Ramsar Convention, www.ramsar.org

| ESP | Management Plan and Reporting Requirements |
|---|---|
| | ii. The potential of the project to impact directly, indirectly, or cumulatively upon areas of physical and cultural heritage. |
| | **B) If such physical and cultural heritage exist and there is a potential of the project to impact upon it, the project will:**<br>i. Provide an inventory of the physical and cultural heritage present in the wider project area that enjoys recognition at community, national, or international levels. Describe the cultural heritage, the location and the results of a risk assessment analysing the potential for impacting the cultural heritage; and<br>ii. Describe the measures to be taken to ensure that cultural heritage is not impacted, and if it is being accessed by communities, how this access will continue. |
| | **C) Reporting:**<br>It is unlikely the project will have any negative impact on physical and cultural heritage. The project will therefore conduct the screening and reporting as soon as the project areas have been determined. In the unlikely event that the project is expected to have a negative impact on biodiversity conservation, the project will develop an ESMP in relation to ESP 14 and monitor and report in the biannual progress reports; annual supervision reports to IFAD as well as the annual PPR to the Adaptation Fund; MTR and final evaluation and impact assessment. |

## IV. Monitoring and Evaluation Plan Resulting from the Inception Workshop

Table 3 ESMP Planned mitigation measures

| Identified Risks / Impacts | Planned mitigation measures | Means of verification | Period of execution | Responsibility |
|---|---|---|---|---|
| Principle 9 Protection of natural habitats | - Inclusion of AF safeguards in the Project Implementation Manual (PIM) and the Annual Work Plan and Budget (AWPB).<br>- All protected areas identified and mapped in all the country<br>- Setting up of screening panel and screening requirements. | - PIM<br>- AWPB<br>- Maps,<br>- GPS locations<br>- Progress reports<br>- ESMP | Project year 1 | CPIU Director, Climate change Unit, |
| | - Inclusion in public tenders that the GPS locations of project activities need to be provided and a mapping of project locations vis-à-vis protected areas.<br>- Screening of proposals and grants for funding to ensure that project activities will not operate in or near protected areas.<br>- Should proposals be received within or near identified protected areas they will need to include:<br>i. an analysis on the nature and the extent of the impact including direct, indirect, cumulative, or secondary impacts; the severity or significance of the impact; and a demonstration that the impact is consistent with management plans and affected area custodians. □<br>ii. Describe the location of the critical habitat in relation to the project and why it cannot be avoided, as well as its characteristics and critical value.<br>- The screening panel should assess whether ESP compliance and proposed mitigations measures are sufficient. | - Tender documents<br>- Screening matrix<br>- Mitigation plans<br>- Progress reports<br>- ESMP | Ongoing | CPIU Director, Climate change Unit, Screening panel |
| Principle 10 Conservation of Biological Diversity | - Inclusion of AF safeguards in the Project Implementation Manual (PIM) and the Annual Work Plan and Budget.<br>- Conduct an assessment and mapping of the national of threatened flora and fauna species (if any). | - PIM<br>- AWPB<br>- Maps<br>- ESMP | Project Year 1 | CPIU Director, Climate change Unit, |

| | | | | |
|---|---|---|---|---|
| | - Setting up of screening panel and screening requirements. | | | |
| | - Include in the screening matrix of the proposal screening panel to assess whether proposed activities are within areas identified as containing threatened flora and fauna species.<br>- Inclusion in public tenders that project activities need to be screened for threatened flora and fauna.<br>- Screen and assess whether project activities are a potential threat to threatened species.<br>- Should threatened flora and fauna be identified proposals:<br>i. Describe the elements of known biological diversity importance in the project area, using any relevant sources of information, such as protection status, status on the IUCN Red List of Threatened Species and other inventories, recognition as a UNESCO Man and the Biosphere Programme reserve, Ramsar site.<br>ii. Describe why the biological diversity cannot be avoided and what measures will be taken to minimize impacts.<br>- The screening panel should assess whether mitigations measures are sufficient. | - GPS locations<br>- Progress reports<br>- ESMP | Ongoing | CPIU Director, Climate change Unit, Screening panel |
| ESP 12 Pollution prevention and resource efficiency | - Assess whether the proposed water permit framework in the project proposal is still relevant<br>- The CPIU will hire a consultant to work with MARDE to explore ways within the national legal and procedural framework to streamline the national water permit approval process and requirements for simple investment proposals for the grants.<br>- Update the PIM and ESMP with revised safeguard guidelines<br>- Based on the revised guidelines screen grant proposals to ensure that they have the required water permits to ensure grant approval. | PIM<br>Progress reports | Project year 1 | CPIU Director, Climate change Unit, PIM consultant, Screening panel |
| ESP 14 Physical and cultural heritage | - Inclusion of AF safeguards in the Project Implementation Manual (PIM) and the Annual Work Plan and Budget.<br>- All physical and cultural areas identified and mapped in all the country<br>- Setting up of screening panel and screening requirements. | - PIM<br>- AWPB<br>- Maps,<br>- GPS locations<br>- Progress reports | Project year 1 | CPIU Director, Climate change Unit, |

| | | | | |
|---|---|---|---|---|
| | | ESMP | | |
| | - Inclusion in public tenders that the GPS locations of project activities need to be provided and a mapping of project locations vis-à-vis protected areas.<br>- Screening of proposals and grants for funding to ensure that project activities will not operate in or near protected cultural areas.<br>- Should proposals be received within or near identified cultural areas proposals for screening and review will need to include:<br>i. Provide an inventory of the physical and cultural heritage present in the wider project area that enjoys recognition at community, national, or international levels. Describe the cultural heritage, the location and the results of a risk assessment analysing the potential for impacting the cultural heritage; and<br>ii. Describe the measures to be taken to ensure that cultural heritage is not impacted, and if it is being accessed by communities, how this access will continue.<br>- The screening panel should assess whether mitigations measures are sufficient. | - Tender documents<br>- Screening matrix<br>- Mitigation plans<br>- Progress reports<br>- ESMP | Ongoing | CPIU Director, Climate change Unit, Screening panel |

## V. Monitoring and Reporting

63. As described in section III – D of the proposal, the project will have a comprehensive monitoring and reporting programme that will include quarterly reports, technical reports, annual project reports, the AF PPR tracking, annual IFAD supervision mission reports, a Mid-term Review and a final evaluation and impact assessment.

64. The ESMP will involve the following Internal and External Monitoring process:

- **Internal Monitoring Process:** The internal monitoring will be undertaken by the CPIU. Each of the environment and social parameters will be monitored along with the implementation of their mitigation measures. The will submit a Compliance and Impact Monitoring Report to the IE every six months and the consolidated report will also be annexed in the Annual Report.
- **External Monitoring Process:** An Environment Audit and Social Audit will be carried out in sample villages within each Primaria every year to verify the implementation of ESMP and to report on the conduct of ESMP and its impact in the village. The Audit Reports will be shared with the IE and a consolidated statement of these audits will be annexed to the Annual Report of the project.

### Implementation Schedule

65. The implementation schedule of ESMP will be as follows:

| Activities | Time | | | | | |
|---|---|---|---|---|---|---|
| | PY1 | PY2[16] | PY3 | PY4 | PY5 | PY6 |
| Development of technical guidelines for the project | | Q1 | | | | |
| Capacity building of project team | | Q1 | | | | |
| Environmental and Social Screening | Q1-4 | Q1-4 | Q1-4 | Q1-4 | Q1-4 | |
| ESMP of tertiary irrigation canals and construction of rainwater harvesting ponds. | Q1-4 | Q1-4 | Q1-4 | Q1-4 | Q1-4 | |
| Implementation of ESMP | Q1-4 | Q1-4 | Q1-4 | Q1-4 | Q1-4 | |
| Monitoring and reporting of ESMP | Q1-4 | Q1-4 | Q1-4 | Q1-4 | Q1-4 | Q1-4 |

### Cost for Screening and ESMP

66. The preparation and implementation of ESMP will have costs that have been built in to the project budget. The cost implications and their source of funds will be as follows:

| ESMP related activity | Source of funding to cover costs |
|---|---|
| Capacity building of project team | Built-in the Project Execution Cost |
| Preparation of screening and ESMP | Built-in the Project Execution Cost |
| Screening and ESMP | Built in the Project Execution Cost |
| Mitigation measures | Built in the Project Execution Cost |
| Monitoring and reporting | Built in the Project execution cost |

[16] TRTP-Adapt will become effective in PY2 of the TRTP project.

## VI. Institutional Arrangements and Capacity Building

67. The institutional arrangements include the distribution of roles and responsibilities in the preparation of Screening and in the implementation of ESMP. The key players and their responsibilities will be as follows:

| Organisation / Designation | Responsibility |
|---|---|
| (IFAD/CPIU) Adaptation Fund Climate Specialist - under the supervision of the CPIU Director | Preparation of Screening and ESMP through the process of community consultation and through field visits to the target irrigation scheme and the land area supplied by the it.<br>Coordinate with experts in geo-hydrology, civil engineering, agriculture engineering, climate change adaptation, natural resources management, for the screening of impacts on soil and water, biodiversity and natural resources.<br>Presentation of Screening and ESMPs, oversee implementation of ESMP that will be undertaken by field staff members and service providers. |
| CPIU Field Staff (with support from Adaptation Fund Climate Specialist) | Assist the Adaptation Fund Climate Specialist in the preparation of the Screening and ESMP at the irrigation scheme level.<br>Presentation of Screening and ESMP in the meetings of the village councils. Implementation of the ESMP at the village level. |
| CPIU Application Evaluation Committee (CPIU Director, Adaptation Fund Climate Specialist, Engineer) | Review Screening and ESMPs. It can also undertake sample checks and give expert opinion on the quality of Screening and the mitigation measures identified in ESMPs.<br>Monitor and review the process of Screening and ESMP.<br>Review the prepared Screening to ensure it fulfils acceptable standards and quality.<br>Make recommendations to Selection Committee. |
| Selection Committee (including MARDE, MoF, MoE, CPIU, Apele Moldovei) | Final approval of grant including ESMP. |