Palacký University Olomouc
University of Clermont Auvergne
University of Pavia

MASTER THESIS

Exploring Environment as Cross-Cutting Issue Among Humanitarian-Development Nexus Actors

Arpan Gelal

Supervisor: Professor Maria Sassi

GLODEP 2020

Exploring Environment as Cross-Cutting Issue Among Humanitarian-Development Nexus Actors

MASTER THESIS

Arpan Gelal
Supervisor: Professor Maria Sassi

Erasmus Mundus Joint Master's Degree in International Development Studies
GLODEP 2020

Declaration

I, Arpan Gelal, hereby declare that this Master thesis entitled “Exploring Environment as Cross-cutting Issue among Humanitarian-Development Nexus Actros” was carried out by me for the Erasmus Mundus Joint Master’s degree in International Development Studies under the guidance and supervision of Professor Maria Sassi, University of Pavia, Italy. I confirm that the work contained herein is my own except where explicitly stated otherwise in the text through a reference. This work has not been submitted for any other degree or qualification except as specified.

Signature:
Date: 05 June 2020

Acknowledgement

I would first like to express my sincere gratitude to my supervisor, Professor Maria Sassi, University of Pavia, for her kind guidance, supervision, valuable inputs and moral support which helped me to conduct and finalize this study. Many thanks to the Erasmus Mundus Joint Master's Degree GLODEP Consortium, for their constant support on all academic endeavors and administrative hassles in three study countries.

Thank you to my parents and grandparents, who always encouraged me for the pursuit of higher education and the importance of international experiences. A big thank you and regards to all my classmates who have greatly enriched the learning experience in the two years-long journey.

05 June 2020

Arpan Gelal

UNIVERZITA PALACKÉHO V OLOMOUCI

Přírodovědecká fakulta

Akademický rok: 2019/2020

ZADÁNÍ DIPLOMOVÉ PRÁCE

(projektu, uměleckého díla, uměleckého výkonu)

Jméno a příjmení:	**Arpan GELAL**
Osobní číslo:	**R180552**
Studijní program:	**N1301 Geography**
Studijní obor:	**International Development Studies**
Téma práce:	**Exploring environmental concern as cross cutting issue among Humanitarian Development nexus actors**
Zadávající katedra:	**Přírodovědecká fakulta**

Zásady pro vypracování

Cross cutting issues have been a concern among the humanitarian and development mandated organizations for a long time. Organizations have developed their own modalities and ways to address them either in rapid humanitarian response or long term development projects. With the recent adaptation of notion of Humanitarian Development (and peace where appropriate) nexus, the focus has been shifted towards the collaborative action of actors and enhance the synergy of individual efforts. While this commitment popularized as ?new way of working?, the current discussion is mainly focused on its operationalization and potential framework for collaboration; there is very limited academic discussion on how various cross cutting issues would be addressed within this collaborative working nexus modality.

The aim of this research project is to explore how the actors are mainstreaming environment in their organizational goals and working mechanisms. The announcement of European Green Deal further enhances the severity of environmental issues and need to strengthen green components in their mechanisms. The study also tries to explore the current practice of green procurement among the actors. The study will be based on case study of selected organizations as nexus actors and information collection will follow both primary and secondary modes. The framework of the study will be based on different handbooks of organizations like Handbook on Green Public Procurement, Environmental Integration handbook for EC development cooperation by European Commission among others. This study sheds light on how different actors have been incorporating environment as cross cutting issue which can act as a starting point for addressing it during joint nexus framework.

Rozsah pracovní zprávy:
Rozsah grafických prací:
Forma zpracování diplomové práce: **tištěná**
Jazyk zpracování: **Angličtina**

Seznam doporučené literatury:

Dalal-Clayton, B. & Bass, S. (2009). The challenges of environmental mainstreaming: Experiences of integrating environment into development institutions and decisions. International Institute for Environment and Development. Retrieved from https://pubs.iied.org/17504IIED/

European Commission (2007). Environmental Integration Handbook for EC Development Co-operation. Retrieved from https://ec.europa.eu/europeaid/sites/devco/files/methodology-environmental-integration-ec-development-handbook-200612_en_2.pdf

European Commission (2016). Buying green! A handbook on green public procurement. Retrieved from https://ec.europa.eu/environment/gpp/pdf/Buying-Green-Handbook-3rd-Edition.pdf

European Commission (2019). Communication from the commission to the European Parliament, The European Council, The council, The European Economic and Social Committee and the Committee of the regions- The European Green. Retrieved from https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

OCHA (2017). New way of working. Retrieved from https://www.unocha.org/sites/unocha/files/NWOW%20Booklet%20low%20res.002_0.pdf
UNEP & OCHA (2014). Environment and Humanitarian action ? Increasing effectiveness, sustainability and accountability. Retrieved from https://www.unocha.org/sites/unocha/files/EHA%20Study%20webfinal_1.pdf

Vedoucí diplomové práce: **prof. Maria Sassi**
University of Pavia

Datum zadání diplomové práce: **3. února 2020**
Termín odevzdání diplomové práce: **22. května 2020**

L.S.

doc. RNDr. Martin Kubala, Ph.D.
děkan

doc. RNDr. Pavel Nováček, CSc.
děkan

V Olomouci dne 3. února 2020

ABSTRACT

Environment mainstreaming across the humanitarian operations and long-term development programs is imperative to the new way of working agreed in the World Humanitarian Summit (2016). Mainstreaming environment in Humanitarian-Development nexus is crucial to minimize the environmental impacts of humanitarian projects and to build long term resilience against environmental and climatic risks and vulnerabilities of communities in protracted crises. This study explores the current environmental mainstreaming strategies of humanitarian and development organizations at the institutional and operational level based on specific attributes. This study conducts the case study of leading humanitarian and development organizations, namely, WFP, IFRC, UNDP, and USAID, based on the conceptual framework on mainstreaming strategies derived from various literature. Multiple case study approach was employed based on information collected through various secondary sources and personal consultation with the organizations. The finding of this study signifies the presence of varying environmental mainstreaming practices within the studied organizations, and comparative analysis among them is also presented. Finally, this study suggests the joint contextual environmental (and climate) analysis by humanitarian and development actors and inclusion of environmental consideration in collaborative multi-year programming to minimize environmental damage in protracted crises.

Keywords: Environment Mainstreaming, Humanitarian-Development nexus, WFP, IFRC, UNDP, USAID

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACRONYMS AND ABBREVIATIONS

ADS	Automated Directives System
AEO	Agency Environment Officer
AOR	Agreement Officer's Representative
BEO	Bureau Environment Officer
BMZ	German Federal Ministry for Economic Cooperation and Development
CAT	Core Assessment Tool
CDCS	Country Development Cooperation Strategy
CFR	Code of Federal Regulations
CFSVA	Comprehensive Food Security and Vulnerability Assessment
CHICCA	Choiseul Integrated Climate Change Adaptation Programme
COR	Contract Officer's Representative
CRF	Corporate Result Framework
CSP	Country Strategic Papers
DAC	Development Assistance Committee
DANIDA	Danish International Development Agency
DFAT	Australian Department of Foreign Affairs and Trade
DFID	Department for International Development
DRR	Disaster Risk Reduction
EFA	Environment Field Advisors
EFSA	Emergency Food Security Assessment
EIA	Environment Impact Assessment
ELAW	Environmental Law Alliance Worldwide
EMG	Environment Management Group
EMMP	Environmental Mitigation and Management Plan
EMMR	Environmental Mitigation and Management Report
EMS	Environment Management System
ENRMF	Environment and Natural Resource Management Framework
EPC	Environment Compliance Procedure
ES	Environmental Standards
ESIA	Environment and Social Impact Assessment
ESR	Environmental Stewardship Review for Humanitarian Aid
ESS	Environmental and Social Standards
ESSF	Environment and Social Safeguards Framework
FAA	Foreign Assistance Act
FAO	Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FIPL	Feedback Infra Private Limited
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Green House Gases
GIZ	German Agency for International Cooperation
GRA	Green Response Approach
HPC	Humanitarian Program Cycle

IASC	Inter-Agency Standing Committee
IFAD	International Fund for Agricultural Development
IFRC	International Federation of Red Cross and Red Crescent Societies
ILO	International Labor Organization
ISO	International Organization for Standardization
JEU	Joint UNEP/OCHA Environment Unit
JICA	Japan International Cooperation Agency
LRRD	Linking relief, Rehabilitation and Development
M&E	Monitoring and Evaluation
MEO	Mission Environmental Officers
NAP-Ag	Integrating Agriculture in National Adaptation Plans
NEPA	National Environment Protection Act
NESS	Nepal Environmental and Scientific Services
NFI	Non-food Items
NGO	Non-Governmental Organization
NWoW	New Way of Working
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OECD	Organization for Economic Co-operation and Development
PAGE	Partnership for Action on Green Reverse Logistics
PAT	Pre Assessment Tool
PEI	Poverty-Environment Initiative
PMER	Planning Monitoring Evaluation Reporting
QSAND	Quantifying Sustainability in the Aftermath of Natural Disasters
RCRC	Red Cross Red Crescent
REA	Regional Environment Officers
SDG	Sustainable Development Goals
SECU	Social and Environmental Compliance Unit
SESA	Strategic Environment and Social Assessment
SIDA	Swedish International Development Cooperation Agency
SOP	Standard Operating Procedure
SPREP	Secretariat of the Pacific Regional Environmental Programme
ToR	Terms of Reference
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDPSP	United Nations Development Programme Strategic Plan
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commissioner for Refugees
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UN-REDD	United Nations Programme on Reducing Emissions from Deforestation and
UNSDCF	United Nations Strategies for Development Cooperation Framework
USAID	United State Agency for International Development
WASH	Water Sanitation and Hygiene
WFP	World Food Programme
WWF	World Wildlife Fund

CHAPTER 1: INTRODUCTION

1.1 Background

Environment is one of the main pillars of the 2030 agenda for sustainable development (UN, 2015). There are various mandates and international agreements in place to integrate environment and development. Agenda 21 adopted in Rio de Janeiro Earth Summit (1992) stressed on the balanced and integrated approach to development and environment. The Paris Climate Agreement (2015) signaled the urgency towards a collaborative effort to reduce the impact of climate change through mitigation and adaptation strategies. Furthermore, there is increasing concern among donors and bilateral agencies on mainstreaming environment in development cooperation for the achievement of sustainable development.

Environmental concerns are often sidelined in the humanitarian sector with a presumption of the environment being 'development issue' (JEU, 2014). However, several environmental impacts have been associated with humanitarian operations including deforestation, overexploitation of natural resources, water contamination among others (UNEP, 2008; (Cravito et al., 2011; Weinthal et al., 2014). It is also evident that environmental factors (for instance climate change, natural disaster, and resource conflict) can exacerbate the risk and vulnerability of people and lead to a humanitarian crisis (Brooke & Kelly, 2015). This indicates there is a need to mainstream environmental concerns in efforts to reduce risks and vulnerabilities to people as well as deliver humanitarian assistance in an environmentally sound manner.

Recognizing the accelerating protracted nature of humanitarian crises and long-standing divide among humanitarian and development actors in the field; the New Way of Working (NWoW) was agreed on World Humanitarian Summit (2016) among the UN agencies, donors, bilateral organizations, NGOs and others to work coherently for collective outcomes in a multi-year timeframe. This humanitarian-development nexus approach envisions not only meeting the emergency needs but also reducing the risk and vulnerabilities of people to meet the SDGs (OCHA, 2017). The current discussion around the nexus is inclined towards its operationalization, i.e. sequencing and layering humanitarian and development programs to address the most vulnerable people; and few small scale 'nexus-type' pilot programs.

However, there is a minimal discussion on mainstreaming environment within the nexus programming. Given that environmental (and climatic) factors may trigger a humanitarian crisis as well as the environment may be negatively affected by emergency operations and longer-term development activities; it is crucial to mainstream environment in both humanitarian and development setup. This is to say that, within nexus-programming, emergency operations should be carried out with the least possible impact on the environment and longer-term development activities should strengthen capacity, infrastructure, and institutions to reduce vulnerabilities and improve resilience against environmental (and climatic) shocks.

1.2 Purpose of the study

This study intends to explore the integration of environmental concerns in the institutional and operational mechanisms of humanitarian and development organizations. Although there are some studies on the environmental impacts of humanitarian operations (see Srinivas & Nakagawa, 2008; Mainka & McNeely, 2011; Oberhofer et al., 2013) and a range of studies on environmental impacts of development projects (see NESS, 2013; Oroda, 2015; K'Oyooh, 2015; FIPL, 2019); there is scare academic research on environmental mainstreaming strategies within humanitarian and development organizations. This thesis conducts the case study of selected humanitarian and development organizations to explore various environmental mainstreaming strategies and present the comparative analysis. Furthermore, mainstreaming strategies are also analyzed from the humanitarian-development nexus perspective.

This study is based on the following research objectives

General Objective:

To explore environment mainstreaming practices within humanitarian and development organizations

Specific objectives:

i. To explore environmental mainstreaming strategies within humanitarian and development organizations

ii. To critically analyze the mainstreaming practices among humanitarian and development organizations
iii. To analyze the mainstreaming mechanisms from Humanitarian-Development nexus perspective

1.3 Significance of the study

The New way of working (NWoW) adopted in the World Humanitarian Summit (2016) envisions the collaborative approach among humanitarian and development actors towards the collective outcome on not only meeting the emergency needs but also reduce the risks and vulnerabilities of people (OCHA, 2017). Environmental factors can trigger sudden humanitarian emergency (e.g. natural disasters and climate change-related crises) and the need for humanitarian assistance and longer-term rehabilitation programs. However, humanitarian and development operations can also affect the environment. Recognizing this fact, there is a need to mainstream environment in the joint multi-year humanitarian-development nexus approach to meet the urgent humanitarian needs while also protecting the environment and reduce the environmental risks and vulnerabilities in longer-term development initiatives. On this base, this study presents a brief critical case-study of current environment mainstreaming strategies of selected humanitarian and development agencies. This is to inform the humanitarian and development workers on current practices and priorities along with available tools and assessment methodologies that might be of significance to mainstream environment within joint nexus programming. This study intends to fill the gap in the academic literature about the comparative analysis of environmental mainstreaming strategies of humanitarian and development organizations.

1.4 Scope and Limitation of the study

This study has been carried out during the outbreak of the COVID-19 pandemic at the Italian Lombardian region. The then strict quarantine measures and the chaotic environment has a significant impact on the course of this study. Apart from the psychological impact of the pandemic, the original design of this study had to be modified. Initially, the data collection was intended to be done through the primary interviews with officials of humanitarian and

development organizations to understand their perceptions on implications of current environment mainstreaming practices to the new way of working in protracted crises.

As it was not feasible to connect with a good number of respondents, this study is based on the available policy, plans, guidelines, frameworks, reports, other various publications, archival records, and limited personal communication with the selected organizations to explore their current mainstreaming strategies. Also, this study limits itself to explore the mainstreaming strategies adopted by selected organizations rather than examine its effectiveness in implementation.

1.5 Organization of the study

This first chapter introduces the topic and elaborates on the objectives and purpose of the study. Chapter 2 layouts the theoretical background and establishes the context of the study. Chapter 3 elaborates on the framework and methodology adopted for the study. Chapters 4 and 5 present the case study of humanitarian and development organizations respectively. Chapter 6 presents a comparison of case study findings and analysis from the humanitarian-development nexus perspective. Finally, Chapter 7 concludes this paper with final remarks.

CHAPTER 2: CONCEPTUALIZATION AND CONTEXT

2.1 Towards New Way of Working: The Nexus approach

The new way of working (NWoW) has been popularized since the World Humanitarian Summit (2016). The stakeholders identified the need to strengthen the collaboration between Humanitarian and Development actors (and peace where appropriate) in protracted crisis settings for the unified vision of leaving no one behind. Central to the new way of working is 'collective outcomes' towards safety, dignity, and equality (OCHA, 2017). Actors are expected to work on multiyear planning based on their comparative advantage to deliver the results to the most vulnerable (OCHA, 2017). The nexus approach bridges the transition from humanitarian to development to peace contexts. Although it remains unclear about the operationalization mechanism for nexus modality, the results from a few pilot projects are promising (Perret, 2019). The idea of collaboration between humanitarian and development actors is not entirely new. It builds upon existing practices like conflict sensitivity approach, disaster risk reduction (DRR), and linking relief, rehabilitation, and development (LRRD). However, the ongoing negotiations in the nexus approach go beyond the conceptual or programmatic approach and align towards the change in how aid is planned and financed (Fanning & Fullwood-Thomas, 2019). The practical implementation of the collaborative approach depends on the synergy between humanitarian agencies, development agencies, governments, civil societies, grass-root NGOs, and the communities (OCHA, 2017).

2.1.1 Environmental concern within the nexus

The current discussion on the nexus programming is in the infancy stage. While the sole concern of stakeholders is on developing mechanisms for the operationalization of nexus, the cross-cutting issues are still not prioritized in nexus briefings and documentation. However, it is recognized that environmental degradation and climate change exacerbate the crises and violent conflicts leading to the risk of recurrence or protraction (OECD, 2020). Environmental factors (for instance, conflict due to scare natural resources) can lead to the need for humanitarian support. At the same time, humanitarian intervention may impact the environment. Meanwhile, long-term developmental support required to recover from disasters, and further infrastructure construction can have significant environmental impact, if programs are designed without due concern to environment.

This makes environmental concern as a sensitive cross-cutting issue in the nexus programming and operationalization.

2.2 Environmental mainstreaming: Setting the agenda

Mainstreaming is accepted as a mechanism for proper adaptation and implementation of cross-cutting issues like the environment, gender and sustainable development across the comprehensive policy, plans and budgets of sectoral and local governments and organizations (Nunan et al., 2012). The DAC chair of OECD explains mainstreaming cross-cutting issues as *"deep changes in the established procedures and cultures of organizations so that the issue becomes integrated into its values, mission and management"* (OECD, 2014, p. 7).

Although environmental mainstreaming remains a vague term with very circumstantial and intentional interpretations, there is universal acceptance of environmental mainstreaming as a critical component of sustainable development. Dalal-Clayton & Bass (2009) define environmental mainstreaming as *"informed inclusion of relevant environmental concerns into the decisions of institutions that drive national and sectoral development policy, rules, plans, investment and action"* (p. 12). European Environmental Agency takes a bit proactive stand and defines environmental mainstreaming[1] as *"moving environmental issues from the periphery to the centre of decision-making, whereby environmental issues are reflected in the very design and substance of sectoral policies"* (European Environment Agency, 2005, p. 12).

However, most of the available literature incline environmental mainstreaming within the development landscape, i.e. incorporation of environmental concern within national development frameworks, plans, policy, and action. It is argued that within the humanitarian landscape, whose main objective is life-saving operations and immediate response; environmental concerns are somehow sidelined (Kelly, 2013) and crisis response may not be an appropriate time to consider the environment. Nevertheless, there is a growing awareness among humanitarian actors on the importance of incorporating the environment in emergency relief and response; UNHCR being the first humanitarian agency to establish the environment unit back in 2005.

This is well summarized in a quote by UNHCR -

[1] Environment Protection Agency (EPA) uses the term 'environmental policy integration' for environmental mainstreaming

"Although environmental concerns have taken a back seat to humanitarian needs at such times of crises, the close links between the well-being of human populations and a healthy environment are increasingly recognized" (UNHCR as in Barrett et al., 2007, p. 3)

2.2.1 Humanitarian-Development Divide in the environmental issues

Environmental considerations are well integrated into the development landscape with specific strategies, guidelines, and mechanisms in place. However, in the humanitarian setting, the availability of mainstreaming mechanisms and incorporating guidelines and policies are rare (JEU, 2014). Humanitarian aid is traditionally linked with an urgent short-term response to crises, whereas development assistance targets long term involvement, tackling the solution to specific systemic problems (Ochoa et al., 2012). While reducing suffering, preserving life, and safeguarding dignity and integrity often remains the main objective of humanitarian response; environmental issues are historically sidelined amid short time and funding (Berrett et al., 2007). Meanwhile, since the Brundtland Commission report (1987) to recent SDGs, environmental consideration is increasingly incorporated within funding modalities, planning, advocacy, and initiatives[2] in the development sector (Dalal-Clayton & Bass, 2009).

With the recurring and protracted nature of the crisis, the duration of humanitarian response has escalated to several years (ICRC, 2016), resulting in the increased presence of humanitarian actors on the field and need to mainstream environment in their multi-year activities. Also, there is increasing awareness that not only the physical and social nature of the humanitarian crisis can damage the environment but also a severe negative impact on the environment can be induced by humanitarian operations itself (Brook & Kelly, 2015, p. 4).

2.3 Environmental issues within the Humanitarian and Development domain

While there are scare empirical studies on the environmental impacts of humanitarian actions, there are increasing theoretical literature on the reciprocal relationship between environment and humanitarian activities. Environmental factors can lead to natural disasters and the need for

[2] For example,
Poverty Environment Partnership (PEP), https://sustainabledevelopment.un.org/partnership/?p=12354
Poverty Environment Initiative (PEI), https://sustainabledevelopment.un.org/partnership/?p=25777
Mainstreaming Environment and Climate Change in the Implementation of Poverty Reduction Strategies, https://eird.org/publicaciones/EDP-119-PRSP.pdf

humanitarian aid. However, the disaster itself and following humanitarian action can have an impact on the quality and availability of natural resources (e.g. land, air, water, soil) thereby affecting human health and livelihood (Barrett et al., 2007). The operational impact of interventions arising from the rapid use of natural resources to meet emergency relief needs, combined with the environmental destruction of disasters, if undermined, significantly delays the recovery process (ELAW, 2008). Meanwhile 'good enough' approach of seeking a simple solution in emergencies, for instance, building plastic huts for shelter; return environmental implications in the long term (Emergency capacity building project, 2007). Activities within every humanitarian cluster can have environmental impacts (see Table 1).

Table 1 Key environmental issues within humanitarian clusters

Sector/Cluster	Key environmental issues	Sector/Cluster	Key environmental issues
Protection	Fuelwood collection can induce environment degradation	Early recovery and disaster waste management	Choice of construction materials and use of fired bricks leading to deforestation and conflict Improper land use and management of disaster waste
Health	Health care waste management (expired medicines and chemicals) Soil-water contamination and disease transmission from infected bandages and tissues	Education	Lack of integration of environment as education and training component Lack of environmental awareness components in sensitization programs in refugee camps
Shelter and NFI	Soil erosion and deforestation from unsustainable extraction of timber Unsustainable construction materials	WASH	Improper management of solid waste and water contamination from sewage disposal Decommissioning of wells and over-pumping of groundwater acquirers
Logistics	Procurement of goods produced through unsustainable manner Improper disposal of construction and logistics waste	Food Security	Improper selection of food requiring long cooking time and more water, leading to deforestation and extensive water extraction Improper disposal of food packaging and cooking waste

(Source: JEU, 2014, p. 18-19)

There are some recorded cases of the adverse impact of humanitarian operations in environmental attributes. Failing to account for the environmental consideration while drilling excessive water by humanitarian organizations led to dried up wells in Afghanistan (Weinthal et al., 2014). Lack of attention to waste management during humanitarian response led to the severe outbreak of cholera after the 2010 earthquake in Haiti (Cravito et al., 2011). Excessive deforestation and destruction of livelihood emerged as the outcome of brick production for humanitarian operations in Darfur, Sudan (UNEP, 2008; JEU, 2014).

Environmental considerations have been increasingly addressed in development policy and practice. The discourse on sustainable development emphasizes the environment as a core pillar of sustainability (UN, 2015). On a broader developmental context, the impacts induced by industrial activities[3] and specific donor-funded project-type interventions (mostly by I/NGOs); could be two pathways to explore how development affects the environment. In the first case, severe environmental implications like climate change, environmental pollution, loss of habitat and extinction of species, loss of natural resources are widely accounted for the outcome of unsustainable industrialization (European Commission, 2006).

In another case, failure to sufficiently account for environmental concern in project-type development intervention may result in short to long-term problems. EIA has been increasingly a legal requirement to access the impact of development projects. Some of the environmental impacts, as identified by several EIA studies, are summarized in Table 2.

Table 2 Environmental impacts of a few development projects

Project	Project Component	Potential impacts	Country
The Gambia Agriculture Value Chain Development Project (AVCDP)	Development of pump irrigation, 50 km road, and warehouses	Vegetation Loss, Habitat and biodiversity loss, river and water pollution, destruction of fish breeding ground, eutrophication, geological destabilization	The Gambia
Construction of water and sanitation structures in Bangale, Tana North Sub County, Tana River County	Rehabilitation of existing dams, construction of water cisterns and pit latrines	Dust pollution, water stagnation, groundwater contamination, water conflicts	Kenya

[3] This explicitly concerns the industrialization based on production-consumption activities intended for country's economic growth

Kabeli-A Hydroelectric Project	Construction of a dam, tunnel, intake and settling basin, access road	Forest loss, Permanent modification of river flow regime, barrier to migratory fish, impact on terrestrial biodiversity, eutrophication, bed level rise, and bank erosion	Nepal
Development of 8 lanes (Greenfield Expressway) from Firozpur Jhirka to Itawa	Construction of 204.6 km long, access controlled-greenfield highway	Change in micro-climate, deforestation, rise in PM levels in the air, noise pollution, waterbody contamination, change in land use and topography	India

(Source: Oroda, 2015; K'Oyooh, 2015; NESS, 2013; FIPL, 2019)

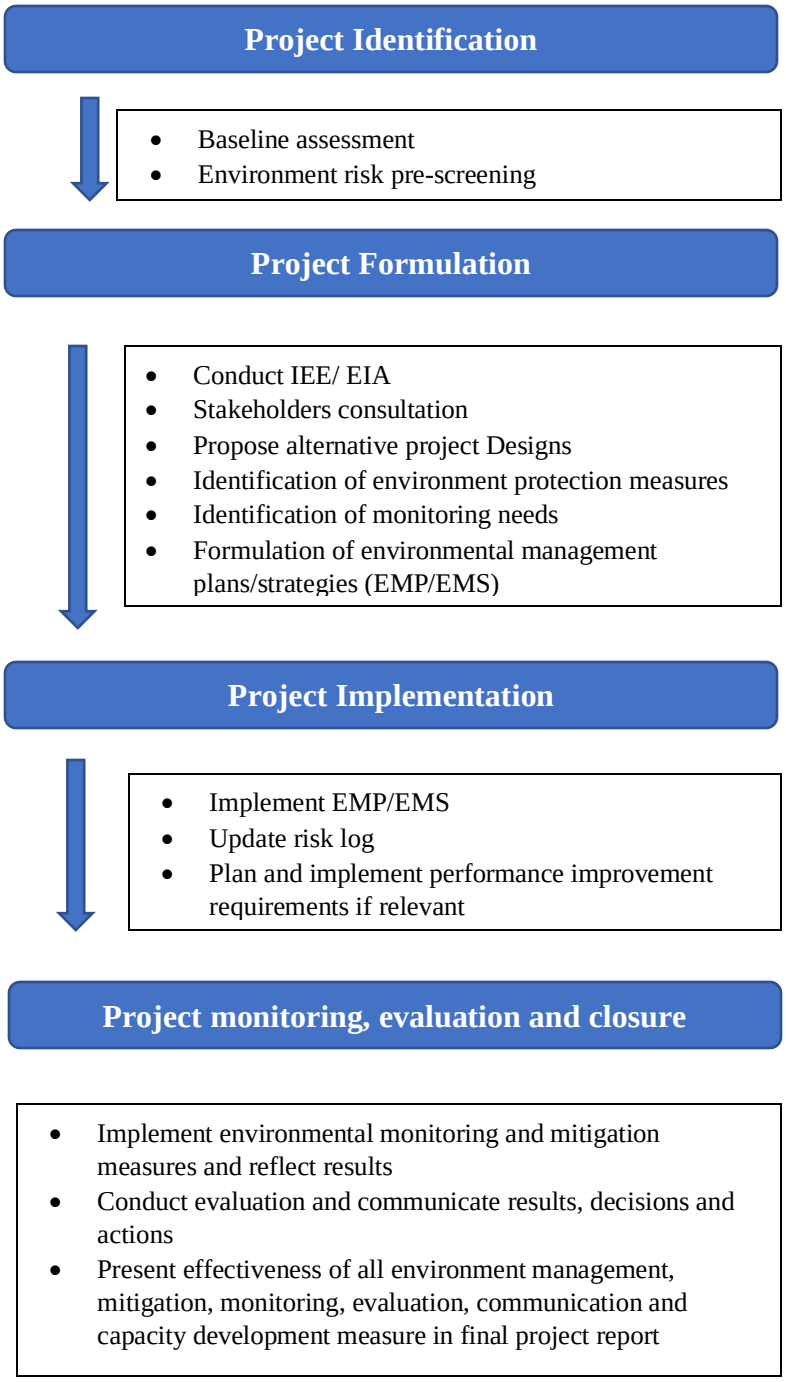
The evidence in Table 2 documents some environmental impacts of development projects. The prime environmental concerns are deforestation, loss of habitat and biodiversity, and environmental pollution. Other overarching impacts are associated with a change in microclimatic conditions, change in land use and topography, geological destabilization and conflict over natural resources, among others.

2.4 Environment mainstreaming within the Humanitarian and Development project life cycle

Environmental considerations are generally incorporated in all the stages of the development project life cycle. While it is true that, most NGOs impulsively regarded the negative environmental impacts of small-scale community-based projects to be minimal, now environmental sustainability has become a significant component in project appraisal (Neefjes, 2000).

The general environmental procedures in a development project life cycle are summarized in Figure 1. Generally, baseline environmental pre-screening is carried out in the inception phase. Brief environmental appraisal, IEE, or extensive EIA are conducted as per the scale of project and donor or legal requirements during project formulation. There might be the need to develop an environmental management plan for the entire life cycle, and performance is tracked through the project monitoring system during project implementation. During project evaluation, negative environmental impacts are assessed (Neefjes, 2000; UNDP, 2012).

Figure 1 General Environmental procedures followed in a development project life cycle



Source: Adopted and compiled from Neefjes, 2000; Dalal-Clayton and Bass, 2009; UNDP, 2012; Overseas Environmental Cooperation Center, 2000

However, there is no agreed standard and guidelines on integrating the environment within the humanitarian program cycle (HPC). There is also a lack of strong agency to enforce the principle of environmental mainstreaming in the humanitarian landscape (JEU, 2014, p. 23). Nevertheless, there is an increasing consensus on HPC as the critical entry point for mainstreaming environment within humanitarian response (JEU, 2014; IASC, 2015a; Cue, n.d.). JEU[4] (2014) recommends coordination among the humanitarian country team and cluster coordinators to include the environment in contingency planning and baseline assessments. The analysis of JEU (2014) shows that the tools and approaches currently used in various stages of HPC have no significant environmental components (see Table 3).

Table 3 Environment Mainstreaming practices within HPC

HPC stage	Tools and approach (Based on IASC Guideline)	Environmental considerations
Needs assessment and analysis	• Multi cluster Initial Rapid Assessment (MIRA)	Lack of specific instruction on how to include the environment within the assessment.
Strategic Planning	• Flash Appeal (within 3 to 5 days of emergency) – sets out priority action drawing upon contingency plan and baseline information gathered during the preparedness phase • Humanitarian Response Plan (within 30 days)	Simple recognition of the environment as a cross-cutting issue but no practical guidance on mainstreaming environment. It Specifies to include only a few (3 to 5) prioritized cross-cutting issues among many.
Resource Mobilization	• Grants and donations	No environmental conditions attached to humanitarian funding
Implementation and monitoring	• Humanitarian Indicators Registry • Humanitarian Response Monitoring Guidance	IASC has recommendations to include at least two indicators in each cluster that can be cross-tagged with the environment or environment-related terms.
Operational Review and Evaluation	• Inter-Agency Humanitarian Evaluation (IAHE)	New IAHE 2018 Guideline does not mention the environment as evaluation criteria; it does mention sustainability, but it is defined as the impact of humanitarian response activities on people

Source: Compiled from IASC, 2012; JEU, 2014; IASC, 2014a; IASC, 2014b; IASC, 2015a; IASC, 2015b; IASC, 2012; Cue, n.d.

[4] UN-Environment/OCHA joint unit (JEU) is principle body to coordinate on the environmental dimension of emergencies

The IASC Guidelines on Multi-cluster Initial Rapid Assessment, generally conducted at the first stage of HPC does not specify details on the inclusion of environmental issues as a priority. Similarly, the Strategic Planning phase of HPC includes the preparation of the humanitarian response plan within 30 days of the emergency onset. Though the guidance on response plan preparation mentions environment as a cross-cutting issue, no further reference is made concerning environment (JEU, 2014). During implementation and monitoring phase, the IASC humanitarian response monitoring guidance recommends using atleast two indicators in each cluster that can be cross-tagged with environment. However, the Inter-Agency Humanitarian Evaluation Guideline includes the sustainability criteria for evaluation, but the environmental aspect of sustainability is not covered within the guideline.

2.5 Policy Guidance on integrating environment within humanitarian and development interventions

2.5.1 Policy guidance within humanitarian interventions

a. DO NO HARM principle

The fundamentals of considering the environment into humanitarian interventions can be dragged back to do no harm concept. Although saving lives might have to be prioritized in emergencies, it should consider the immediate environmental issue to a possible extent. Damage to the environment in the initial stages should be adequately addressed in later stages of intervention, and further risk of disaster is to be reduced (Brooke and Kelly, 2015; Kelly, 2013).

b. SPHERE standards

Sphere project (2018) sets the minimum standards to be indorsed during humanitarian response. Sphere handbook stresses the need to consider the environment and manage resources effectively, efficiently, and ethically (Sphere Association, 2018, p. 80). It provides sectoral guidance and key considerations on environmental standards. It also highlights the need to consider environmental sustainability and ensure environment-friendly practice in procurement, land and natural resource use, choice of construction materials and transport (Sphere Association, 2018, p. 19)

c. UNHCR Environment Guidelines

It provides phase-wise environmental guidelines in its UNHCR activities regarding refugees. In addition to the sector guidelines for various emergency clusters, it includes operational guidelines on the financial integration of environmental matters, institutional actions, and coordination between agencies and actors (UNHCR, 2005).

d. Donor Guidelines

While there are detailed policies on the integration of the environment in development assistance, it is rare to find the same for humanitarian funding (JEU, 2014). The USAID has updated a segment entitled 'Environmental Review in International Disaster Scenario' in its Environmental Procedure Guidelines. However, it provides an explicit exemption of environmental review in urgent disaster circumstances prioritizing saving lives. Routine environmental procedures are to be activated only in post-disaster recovery activities (USAID, 2013a). DFID Environment Guide (2013) recommends adopting 'minimum environment harm policy', the inclusion of environmental issues in the budget, and hiring of environment specialists. Denmark's Strategy for Development Cooperation and Humanitarian Action (2017) mentions its commitment to SDGs and the environment but does not mention any environmental requirements in humanitarian assistance (DANIDA, 2017).

2.5.2 Policy guidance within development policy and practice

The evolvement of environmental considerations within the development landscape is instinctually linked with various conventions, conferences, protocols, standards, and agreements over time (Klarin, 2018). The establishment of the World Commission on Environment and Development and its Brundtland Report (1987) conceptualized sustainable development and emphasized the environment as a strong component of sustainable development. Rio Conference and Agenda 21 (1992) further enhanced the framework for environmental mainstreaming in the development landscape. The Millennium Development Goals (MDGs) had one goal particularly focused on environmental sustainability. The Sustainable Development Goals (SDGs) have reemphasized the environment as a core pillar of sustainability and has directed development actors towards combating climate change and building resilience in development cooperation (Klarin, 2018).

The requirement of environmental assessment for the overseas development projects and interventions by the Environmental Policy Act of the USA in 1969 is regarded as a landmark decision in mainstreaming environment in development cooperation (Jerkins, 2016). USAID's Environmental Procedures requires a series of environmental compliance activities to be undertaken in a project life cycle; initial environment examination for projects with lower environmental impacts or comprehensive environmental impact assessment for projects with more significant environmental impacts; along with constant environmental performance monitoring and reporting activities (USAID, 2013a). European Union (EU) Guidelines on the integration of environment outlines that environment and climate change indicators are to be monitored continuously during implementation, and environmental performance is to be evaluated to ensure the sustainability of its projects and programs (European Commission, 2016). In 2010, JICA adopted new environmental and social guidelines that require its funded projects to access its environmental impacts on ecosystem and biota along with constant monitoring of environmental performance throughout project implementation (JICA, 2010). SIDA has also outlined procedures and tools to mainstream environment through sector-wise checklists (SIDA, 2002).

CHAPTER 3: METHODOLOGY

3.1 Theoretical framework

Mainstreaming is often cited as an essential mechanism by the international agencies to integrate cross-cutting issues like gender, environmental management, climate change adaptation, or sustainable development (Nunan et al., 2012; OECD, 2014). While there is no consensus on a single measure to mainstream cross-cutting issues; it is accepted that mainstreaming is strategic to integrate specific themes across the organization's design, implementation, monitoring, and evaluation of policies and programs (OECD, 2014, p.7).

There is an overarching need to integrate environmental concern in the wide range of activities and decisions of institutions and agencies that drive humanitarian and development initiatives. Environmental assets remain the basis of livelihood, driver of social and economic growth, and offer safety nets for the poor. Poor environmental management poses livelihood vulnerability to the poor, risk of climate change, and threaten development (Dalal-Clayton & Bass, 2009). Prevailing environmental issues can be responsible for natural disasters and the need for humanitarian aid. However, the disaster itself and following humanitarian operations can have an impact on the quality and availability of natural resources (e.g. land, air, water, soil); thereby affecting human health and livelihood (Barrett et al., 2007). There is an ever-growing need to mainstream environmental concerns in the humanitarian and development activities.

To build up a theoretical basis, this study adopts the following definition of environment mainstreaming slightly modified from Dalal-Clayton & Bass (2009)

"informed inclusion of relevant environmental concerns into the decisions of humanitarian and development institutions that drive their policy, rules, plans, investment and action" (p. 11)

Mainstreaming approaches

Nunan et al (2012) and Wamsler et al (2014) identify two different approaches or modalities of environmental mainstreaming. The integration of environmental concerns can either take horizontal or vertical pathways. Nunan et al (2012) talk about the national level policy integration

where vertical integration is led by a strong entity like cabinet or parliament, and subsequent bodies report to a powerful entity. This strong entity takes the lead to coordinate policies and plans and formulate subsequent guidelines. It signifies the top-down approach of mainstreaming with hierarchal structure and backward reporting (Nunan et al., 2012).

Horizontal mainstreaming is characterized by lower top-down support and occurs through task forces or liaison roles or cross organizations teams and integrating departments. This structure can be both temporary and permanent. Horizontal mainstreaming can also be led by a single agency or an organization, but it is less powerful and takes the form of working groups or committees with comparative technical and analytical expertise (Nunan et al., 2012; Wamsler et al., 2014).

Mainstreaming strategies

Various strategies to mainstream a thematic concern within organizational mechanisms and activities have been identified in the literature. At the institutional level, regulatory mainstreaming can be initiated through the adoption or revision of policies and regulations on a specific issue (Wamsler, 2014; Wamsler et al., 2014; Roberts and O'Donoghue, 2013; Sitas et al., 2014). Mainstreaming can also take the form of managerial considerations, adapting and modifying the organizational management practices (Burch, 2010; Holden, 2004; Wamsler et al., 2014). Furthermore, organizations can also strategically collaborate among other organizations through inter-organizational mainstreaming to develop competence, knowledge sharing, or action taking to the mainstream topic under consideration (Roberts and O'Donoghue, 2013; Pelling et al., 2008; Wamsler, 2014).

At the operational level, mainstreaming a particular theme can take various strategies. First, it can take the form of programmatic mainstreaming by integrating the mainstreaming topic into its core activities, programs, and on-ground projects (Holden, 2004; Roberts and O'Donoghue, 2013; Wamsler et al., 2014). Second, through add-on mainstreaming, organizations can initiate new activities and practices that are not directly related to the organization's core objective but focus on the topic being mainstreamed (Wamsler et al.; Roberts and O'Donoghue, 2013; Holden, 2004).

Based on these theoretical strategies for mainstreaming an issue under consideration derived from various literature, this study identifies specific criteria to explore the environmental mainstreaming within humanitarian and development organizations as elaborated in Table 4.

Table 4 Analytical framework of the study

Mainstreaming Strategy	Criteria/Categories to explore environment mainstreaming
Regulatory mainstreaming	**Policy Context**
	This criterion seeks to explore the environment policy and environmental considerations in various plans, principles, priorities, manuals, guidelines, and standards of organizations
Programmatic mainstreaming	**Country Programming and Emergency Operations**
	This criterion seeks to explore how environmental issues are incorporated in country strategic plans or assistance frameworks of organizations or emergency response protocols
	Assessment and Integration Tools
	This criterion explores what tools are available and used by organizations to identify, prioritize and manage environmental impacts in their operations
	Monitoring, Evaluation, and Reporting
	This criterion seeks to explain how environmental issues are incorporated in the monitoring and evaluation of programs, projects or country performance
Inter-organizational mainstreaming	**Collaboration and Partnership**
	This criterion explores how organizations collaborate with other organizations in terms of joint initiatives and experience sharing to mainstream environmental issues
Managerial mainstreaming	**Environment Management System (EMS)[5]**
	This criterion explores the practices of the organization that seeks to reduce the environmental impact of its in-house operations through reduced greenhouse gas emissions, waste management, energy or water use in its central, regional, country or field offices
Add-on mainstreaming	**Green Procurement [6]/ Reverse Logistics[7]**
	This criterion seeks to explore the presence of green procurement practice and reverse logistics as an add-on strategy

Source: Own elaboration based on Wamsler, 2014; Wamsler et al., 2014; Roberts and O'Donoghue, 2013; Sitas et al., 2014; Burch, 2010; Holden, 2004; Pelling et al., 2008

[5] For this study, EMS is defined as practices and processes that help organizations to reduce environmental impacts of its in-house operations

[6] Green procurement is defined as the purchase of goods and services with less environmental impact compared to other competing goods or services with same purpose (UNDP, 2008, p. 4)

[7] Reverse Logistics means the recollection of items from the point of consumer to place of origin for recycling, waste management or pollution control (Logistics Cluster, n.d.)

As mentioned in Table 4, the regulatory mainstreaming strategy is analyzed through the investigation of environmental policy or mainstreaming of environment in other sectoral policies of the organizations. This study seeks to explore the environmental mainstreaming across the country planning or assistance framework documentation, availability of environmental safeguards and assessment tools as well as environmental monitoring, evaluation and reporting mechanisms as part of the programmatic mainstreaming strategy. The practice of collaboration among humanitarian and development organizations in environmental issues is the criteria adopted in this study to explore the inter-organizational mainstreaming strategy. Similarly, organizations can adopt managerial protocols to limit the environmental impact of their in-house operations and reduce their overall carbon footprint. This is explored through the adaptation of an EMS as a managerial mainstreaming strategy. However, meeting the humanitarian needs and implementing development interventions require constant procurement of various supplies which may generate negative environmental impacts or waste generation. Considering this fact, environmental mainstreaming in their operations is analyzed through the green procurement and reverse logistics practices in humanitarian and development organizations as an add-on strategy.

3.2 Research methodology

3.2.1 Multiple case study approach

This study followed the qualitative mode of inquiry. The explanatory nature of the topic seeking to answer ‘how’ regarding certain phenomena is best approached through qualitative inquiry (Patton, 2015). Moreover, the case study as a research methodology is more relevant to explore contemporary circumstances in a real-world context and answer how questions by exploring operational processes rather than frequencies or incidence (Yin, 2018). To explore how organizations' mainstream environment in their institutional and operational mechanisms fits this context.

This study followed a multiple case study approach, as suggested by Yin (2018). Studying many individual cases helps to understand the processes in general and study the similarities or contrasts about the cases under consideration (Yin, 2018). Furthermore, this study considered mainstreaming mechanisms within selected humanitarian and development organizations as

'cases' of study and mainstreaming mechanisms within them were explored based on criteria as elaborated in Table 1 as 'themes' of the case study.

3.2.2 Selection of organizations

The individual organizations for this multiple case study were purposively selected to ensure that cases provide enough insights to explore the posed research objectives. Purposive selection is particularly essential when selected cases for study are rich in information and interesting phenomena (Palinkas et al., 2015). Organizations[8] were selected based on their geographical coverage, proactiveness in incorporating environmental concerns in their institutional and organizational mechanisms, the adaptation of relevant environmental policy, and representation of both the humanitarian and development sector. Detailed considerations on these factors led to the selection of the World Food Programme (WFP) and International Federation of Red Cross and Red Crescent Societies (IFRC) among humanitarian organizations; while United Nations Development Programs (UNDP) and United States Agency for International Development (USAID) are selected among development organizations.

Table 5 Organizations selected for the case study

Organizational domain	Selected organizations
Humanitarian	World Food Program (WFP)
	International Federation of Red Cross and Red Crescent Societies (IFRC)
Development	United Nations Development Programs (UNDP)
	United States Agency for International Development (USAID)

3.2.3 Data Collection and analysis

This study is primarily based on a secondary desk study of the information gathered through various policy documents, guidelines, protocols, manuals, reports, briefings, and other relevant publications of the selected organizations. This information collection strategy makes sense for the research topic adopted as the aim is neither to explore the opinions of people on environmental mainstreaming, nor the nature of information required demands extensive personal inquiry[9]. Rather policy documents, reports, guidelines, practice notes, briefings, and other related

[8] The term organization is used synonymously to denote both organizations and agencies

[9] This is also justified because the required information for this study is widely available in various documents easily accessible in their websites or could be directly asked with the organizations

documents of the aforementioned organizations provide accurate information on their practices, policies, instruments, and status of environmental mainstreaming. Yin (2018) mentions that documents and archival records are a prominent source of data in case study research. They provide systematic, evidential, highly inferential information as well as less chance of informational misleading, and correct interpretation of evidence.

Nonetheless, an attempt has been made to contact the selected organizations wherever further explanation or specific information was required. Hence, information was gathered through documentary evidence and personal consultation with organizations wherever necessary. However, the study had limitations on the use of the primary approach of data collection, as mentioned in chapter 1. Examples of primary documents consulted are attached in Annex 1.

3.2.3.1 Deductive category application approach

The identification and analysis of information from various selected materials are based on the deductive category application approach (Mayring, 2000). In this approach, the aspects of analysis follow an application of prior formulated, theoretically derived categories (Marying, 2000). This process was organized in the following phases-

1. Seven categories (criteria) were defined based on theoretical literature on mainstreaming strategies (see Table 1)
2. Various documents and publications of all organizations for each criterion were identified and categorized along with personal consultation with the organization wherever required
3. Relevant extracts and critical information from each document were identified and assembled under each criterion
4. Exploration of critical insights and comparison on how environmental issues are incorporated into an organizational mechanism based on information extracted under each criterion

However, for country programming criteria under programmatic mainstreaming, the inductive content analysis was performed to analyze the text of strategic country planning documents[10] of

[10] These documents are known by various names in different organizations. WFP calls them Country Strategic Plans whereas IFRC calls them Country Office Plans. UNDP's country activities are directed by United Nations

all organizations to reveal the (thematic) environmental priority areas and strategies to achieve them. Qualitative content analysis, as an organized reading of texts, helps identify the themes or patterns and set them into categories (Creswell & Creswell, 2017; Weimer & Vining, 2017). The open coding of texts was carried out to identify prioritized environmental actions and strategies, and various themes were organized into parent categories resembling the broad environmental priority areas for each organization. All the country strategies approved and implemented since 2019 of all organizations were selected[11] for the analysis (except IFRC, for IFRC all the country plans released in 2020[12] were included). This led to the selection of 122 (n=122) documents for the analysis (List of documents are attached as Annex 2). The findings of the content analysis are reported in country programming criteria for each organization.

Development Assistance Framework whereas USAID prepares Country Development Cooperation Strategy for countries of its operations

[11] WFP, UNDP and USAID prepare documentation for multi-year timeframe and time frame varies between individual countries

[12] Since, IFRC prepares country plans annually; it has already released county plans for 2020

CHAPTER 4: CASE STUDY OF HUMANITARIAN ORGANIZATIONS

4.1 WORLD FOOD PROGRAMME

4.1.1 Policy context

WFP recognizes the sustainable use of natural resources and healthy ecosystems as a pre-requisite to end hunger and achieve all dimensions of food security – availability, accessibility, utilization, and stabilization of food (WFP, 2017a). Although the first environment policy entitled 'WFP and the environment' was developed as early as in 1998, it was barely operationalized (Kliest & Singh, 2012). Superseding the 1998 policy, WFP has enacted a new comprehensive 'Environmental Policy' in 2017. Currently, this policy address the impact of its operational activities in the environment, while its Climate Change policy which addresses the effect of the environment in the food and nutrition security of beneficiaries (WFP, 2017a).

Environmental Policy (2017) directs WFP to adopt the following measures -

a. Incorporation of environmental standards in Country Strategic Plans (CSPs) and corporate processes
b. Adaptation of standards and screening process for identification, categorization, and management of environmental risks in its activities and operations
c. Minimization of environmental impacts of emergency operations through standard operating procedures and preparedness measures
d. Adaptation of the Environment Management System (EMS) to reduce in-house emissions and ensure sustainable procurement
e. Incorporation of environmental accountability in its monitoring, evaluation and reporting mechanisms
f. Collaboration with agencies to learn best practices, and governments to increase their capacity

(WFP, 2017a)

WFP's Climate Change Policy (WFP, 2017b) mandates the integration of climate change reduction measures in its activities. The policy emphasizes the incorporation of climate components in CSPs as the starting point. It also directs toward the selection of transfer modalities – food assistance or aid, tailored to the context to build the resilience of food vulnerable population against climate

shocks. The policy instructs the deployment of climate risk analysis tool for food security analysis. It also emphasizes on implementation of climate shock responsive social protection and safety nets, and development of staff capacity and technical expertise for climate action (WFP, 2017b).

WFP Strategic Plan (2017-2021) sets the achievement of sustainable food systems as a strategic result indicator under one of its strategic objectives. This is to be achieved by promoting healthy ecosystems, improving land and soil quality, and enhancing adaptation capacity to climate change, extreme weather, and disasters. (WFP, 2017c). Moreover, WFP's Standards of Conduct include sustainable use of resources and particular attention to environmental impacts while designing its activities (WFP, 2017c).

Policy foundations for environmental sustainability in its programming are also guided by its Disaster Risk Reduction and Management Policy (WFP, 2012a), Policy on Building Resilience for Food Security and Nutrition (WFP, 2015), Humanitarian Protection Policy (WFP, 2012b) and some fundamental environmental aspects are considered in its guidance manual for logistic, fleet management or facilities and administration.

4.1.2 Country programming and emergency operations

WFP's Emergency Preparedness Policy stress training staffs to ensure its operations do not generate negative environmental impacts on beneficiaries. It also states the need to integrate accountability for environmental impacts into its emergency operations (WFP, 2017e). However, the Standard Operating Procedure for the emergency response (WFP, 2012c) does not include any environmental considerations. WFP states that efforts are made to reduce environmental impacts of its emergency operations by transporting food through road and sea rather than airplanes to reduce greenhouse emissions, use of recyclable food packaging, eco-driving techniques, and staff behavioral change among others (WFP, 2016b).

WFP's Policy on Country Strategic Plans briefly states the need for incorporation of environmental considerations and impacts of climate change in the formulation and implementation of CSPs (WFP, 2016a). The analysis of CSPs[13] implemented since 2019 shows the systematic integration

[13] All CSPs implemented since 2019 were analyzed for this study. The total of 49 CSPs have been implemented since 2019.

of environment and climate across the WFP's mandate of ending hunger, food security, improved nutrition, and sustainable agriculture (see Annex 3). The CSPs also adhere to WFP's environmental and social standards (elaborated in section 1.3). The CSPs envision reducing the environmental impacts of its food assistance programs through reduced packaging, bigger packages to reduce packaging wastes, and pooled transportation whenever possible.

The CSPs mainstream climate-based adaptation and resilience-building through its flagship programs. In the Rural Resilience Initiative program, the prioritized activities include crop insurance, microcredit programs, village cereal banks, and improved crop harvest, storage, and processing practices to reduce climate vulnerability on food security. The Food for Assets (FFA) program intends to build community assets to mitigate climate hazards and reverse environmental degradation. In its Food for Training (FFT) programs, food assistance is conditioned upon receiving training for sustainable agriculture practices. The CSPs envision to mainstream environment in its School Feeding Programs through the local procurement of food, thereby reducing GHG emission through a shortened supply chain and shift to fuel-efficient stoves at schools. WFP's smallholder farmer support program includes the promotion of climate adaptation strategies through crop diversification, climate risk financing, and environment-friendly production inputs.

The CSPs prioritize disaster risk reduction and emergency preparedness through its support for the communities to adopt early warning systems and climate risk monitoring. The CSPs also adopt climate contingency and seasonal livelihood planning support to host countries. As a part of country programming, CSPs incorporate strengthening government capacity to climate shock response through climate-smart productive safety nets, environmental policy support, meteorological equipment, and climate risk monitoring through technical support in climate data collection and analysis.

4.1.3 Assessment and Integration tools

Identifying the lack of system-wide environmental standards and integration tools, WFP has recently approved the Environmental and Social Safeguard Framework (ESSF) in late 2018 which is to be implemented in all its programs and operations as envisioned in Environment Policy (WFP,

2018c). While the implementation of the framework is being piloted in a few WFP country activities, the system-wide implementation is still underway.

ESSF includes three tools: Environmental Standards (ES), Environmental Risk Screening and Categorization, and EMS. ES has set the minimum environmental standards to be considered in the policy, programmatic and operational activities under the following five broad categories: Biodiversity and ecosystems, Sustainable natural resource management, resource efficiency and waste management, Pollution prevention and management, and Climate Change (WFP, 2018c).

ESSF also includes environmental risk pre-screening of all activities related to CSPs in their earlier stages of planning. Environmental risk screening leads to the classification of the proposed activity into three categories. Categories A are activities with high environmental risk which needs to go through the Environment and Social Impact Assessment, while moderate risk – B category needs Environment and Social Management Note. Category C does not pose a significant risk and is exempt from further assessments (WFP, 2018c).

4.1.4 Monitoring, Evaluation and Reporting

The Corporate Results Framework (CRF) 2017-2021 of WFP for the first time states the need to measure environmental consideration as a cross-cutting priority in its interventions. It includes one indicator to measure if targeted communities benefit from WFP programs in a manner that does not harm the environment. It is measured by the following indicator-

> "*proportion of activities for which environmental risks have been screened and, as required, mitigation actions identified*" (WFP, 2018d, p.20)

However, in 2018, only 11 countries reported in this indicator out of 16 countries that used the screening tool—only eight reported screening 100 percent of eligible activities (WFP, 2019a). The new environment policy has recognized the need to include environmental indicators in monitoring systems of vulnerable countries. The compliance with the policy is to be accessed through standard project reports, and annual performance reports and indicators are to be developed to report EMS results in performance reports (WFP, 2017a). Moreover, annual performance reporting on the environment as a cross-cutting issue in annual country reports started only in 2018.

4.1.5 Collaboration and partnership

WFP partners with country governments, Rome based agencies, and the United Nations system to built-up capacity to strengthen environmental mainstreaming. It collaborates with partner governments to share lessons learned, provide environmental expertise in planning food and security interventions, and obtain technical services of ministries to acquire local knowledge on environmental issues (WFP, 2017a).

At the international level, focal points from WFP, FAO, and IFAD collaborate to improve their sustainability services and environmental practices in using catering and stationery supply, energy provisions, and use of common contractors wherever possible. Each other's best practices are scaled up in Rome and the field (WFP, 2017a). Moreover, WFP served as a core group member for drafting the environmental and social sustainability framework in UN systems (UN, 2012) and was one of seven agencies to pilot it in 2015. WFP also participates in working groups led by Environment Management Group (EMG) and UNEP to advocate environmental sustainability. Furthermore, WFP has partnered with UNEP in co-authoring guidelines for inter-agency waste management and business case for EMS.

4.1.6 Environment Management System

WFP is a leading agency in the UN system in terms of improving the environmental sustainability of in-house operations. It started initiatives to measure and reduce the emission of greenhouse gases from office buildings, vehicles, and travel since 2009. In 2015, it was declared to be a carbon-neutral agency (WFP, 2016c). Reporting for waste management started in 2016 (WFP, 2016b). The current orientation of WFP is towards the preparation of guidance documents and stepwise manuals to implement EMS as envisioned by its environmental policy update in late 2018.

WFP committed to implement EMS with the UN in 2013 and was involved in the preparation of the UN system-wide EMS framework based on ISO 14001[14]. In 2015 WFP was one of the four agencies to start piloting UN EMS in its Kenya country office. Apart from greenhouse gas emissions, the EMS includes environment-friendly systems in the use of water, energy, waste

[14] ISO 14001 sets requirement of using an EMS to improve organizations' environmental performance

management, and staff training (WFP, 2018c). Learning from the pilot implementation at Nairobi office, WFP is still working to scale up EMS[15] to cover all offices throughout the world and preparation of relevant EMS templates.

4.1.7 Green Procurement/Reverse Logistics

WFP is concerned about minimizing its carbon footprint arising from procurement activities. It applies the strategy of procuring food locally[16] whenever possible to green its procurement practice by shortening the supply chain (WFP, 2019e). Considerations are made to minimize environmental impacts through sustainable procurement[17] based on the life cycle approach. However, WFP's suppliers screening criteria do not include any environmental considerations. Moreover, WFP's shift from food aid to food assistance has positive environmental benefits through the reduction of transportation emissions (WFP, 2017a).

WFP has been adopting supply chain waste management through reverse logistics approach by recycling, reusing, or upcycling its food packing materials and office equipment in some operations and country offices. Generally, considerations are made to reduce the size of the packaging of food, reducing colours in-printing, and avoiding plastic packaging (Beltrami, 2018). For instance, WFP Kenya started recycling plastic food packagings, whereas WFP Ethiopia started recycling old broken plastic pallets in 2019. WFP Uganda and Sudan started recycling tyres. Rainwater harvesting is practised in a few country offices. Upscaling of these fragmented practices is planned in all country offices and operations through recently prepared waste, water, and energy management guidelines[18].

[15] WFP extended EMS in Ethiopia, Senegal and Panama in 2019
[16] WFP's focus on this is reflected on its policy on local and regional food procurement
[17] WFP has prepared sustainable procurement guidelines
[18] https://www.greeningtheblue.org/what-the-un-is-doing/world-food-programme-wfp

4.2 INTERNATIONAL FEDERATION OF RED CROSS AND RED CRESCENT SOCIETIES

4.2.1 Policy context

IFRC has not prepared an independent environment policy yet, but operations are underway on its development. IFRC and its national societies are guided by its rules for humanitarian assistance. The rules include the need to address environmental sustainability as a cross-cutting issue in the development of relief and recovery strategy by national societies (IFRC, 2013). Rules also abide IFRC to minimize any potential environmental impacts (do no harm to the environment) and consider international environmental standards in all its assistance activities. The IFRC Code of Conduct also states that further vulnerabilities to disasters are to be reduced by designing and managing its relief programs with distinct attention to environmental concerns (IFRC, 1994).

IFRC has adopted Green Response Approach (GRA) to emergency response operations and has formed a Green Response Working Group in 2014. Green Response Approach guided by Green Response Strategic Plan (2019-2023) envisions improving the environmental impacts of life-saving operations rather than saving the environment itself. Long term outcomes of GRA are aimed three-fold –incorporation of environmental consideration in each stage of humanitarian response cycle; identification, and mitigation of environmental impacts resulting from the emergency response, and mainstream environment through policy, practice, and partnerships. Currently, the key considerations under this approach include greening supply chains, shelter and settlements, WASH operations, and training staffs (IFRC, 2018)[19].

Some sectoral IFRC policies incorporate environmental consideration to some extent. The Post Emergency Rehabilitation Policy outlines that rehabilitation programs should redress the unpreventable damage to the environment incurred during emergency relief operations and build more disaster-resilient communities (IFRC, 1999). The Food Security and Nutrition Policy states the need to support primary production activities in an environmentally sustainable manner (IFRC, 2003).

[19] However, implementation of green response by its national societies is voluntary and practices are fragmented, and lacks global implementation

IFRC's recently adopted Strategy 2030[20] acknowledges the principled approach to prioritize the sustainability of Earth's ecosystem. It recognizes climate and environmental crisis as a major threat for the next decade and the need to integrate climate risk and environmental management in its operations. It also envisions to reduce its environmental footprint (IFRC, 2019a). Also, IFRC's Global Plan 2020 stresses greening relief items as far as possible, focus on behavioral change of its staff to make greener choices and adopting sustainable ways to meet humanitarian needs (IFRC, 2019b).

4.2.2 Country programming and emergency operations

IFRC Plan and Budget 2016-2020 guides the preparation of country strategies and programmatic focus areas of its national societies. While disaster risk reduction through early preparedness, climate change advocacy, and early environmental warning systems are prioritized as major areas of focus, the plan does not state a significant focus on mainstreaming environment to reduce environmental impacts of its own operational activities. However, it directs national societies to align policy approaches that promote the environment as transversal concern and adaptation of greening strategies (IFRC, 2015).

Regarding the emergency response context, IFRC has been promoting Green Response Initiative (GRA)[21] to identify, avoid, reduce, and mitigate environmental impacts. While there are no environmental standards and safeguards developed[22] to be followed in emergency operations, GRA envisions to promote the local purchase of assistance materials, use of locally available sustainable materials to build shelters and develop local staff capacity for environmental sustainability (IFRC, 2017). IFRC has adopted a Plan of action for greening supply chain and shelter and settlements. Moreover, the trials for adopting a green approach in emergency solid water management through new technologies are underway in Nepal, Bangladesh, Lebanon, India, and Sweden (IFRC, 2019c).

[20] Strategy will guide the direction of IFRC network for 2021-2030
[21] Green Response Initiative is voluntary and non-binding
[22] IFRC refers to sphere standards on this context

At the country programming level, the content analysis of country operational plans of IFRC[23] national offices reveals that IFRC prioritizes climate-based adaptation across its disaster risk reduction program area. The common strategies for mainstreaming climate-based adaptation are community-based early warning systems linked with local meteorological systems, public awareness campaigns on climate adaptation, aforestation, limited plastic usage and disposal, and climate adaptation training to local communities. Other strategies identified in operational plans include climate change information dissemination through community drama, folk songs and pamphlets, integration of climate action into disaster management planning process, and support preparation and implementation of national climate change adaptation plans.

Across the livelihood and basic needs program area, the IFRC operational plans integrate environmental components like climate-resistant agricultural support including farming training, climate-resilient crop varieties, the establishment of seed banks, and promotion of community-based water management practices.

4.2.3 Assessment and Integration tools

4.2.3.1 Green Recovery and Reconstruction Toolkit

The American Red Cross, along with WWF, has prepared a toolkit to inform the humanitarian workers on environment-friendly strategies on post-disaster recovery and reconstruction. It includes training of various modules including a green approach to project design, M&E, EIA tools and techniques, site planning, supply chains, construction, and WASH among others (American Red Cross and WWF, 2010a).

4.2.3.2 Environmental Field Advisors (EFA)

As a part of GRA, IFRC has prioritized the deployment of EFA in its emergency response activities to enhance its environmental outcomes and reduce the cost of environmental externalities of emergency actions to the host country. Together with sector and project leads, EFA is expected to identify areas of significant environmental impacts of its emergency response and recovery activities and incorporate improved actions in the program plan. Recently, IFRC deployed EFA in

[23] A total of 49 operational plans of country offices or cluster-country offices were rolled out in 2020 and all were reviewed for this study

its response to the refugee influx in Bangladesh. However, the effectiveness of deploying EFA is yet to be assessed (IFRC, 2019d).

4.2.3.3 Environment Assessment Tools

The ICRC and IFRC Emergency Assessment Guidelines do not incorporate significant consideration to assess the potential environmental impacts of its emergency operations (IFRC and ICRC, 2008). However, IFRC and ICRC network has been involved in the development of following assessment tools which attempt to capture the environmental dimension of its operations-

- Quantifying Sustainability in the Aftermath of Natural Disasters (QSAND)

QSAND[24] scoring and assessment tool includes the natural environment as one of the categories of sustainability assessment of the emergency relief and recovery operations. QSAND has two components – Pre Assessment Tool (PAT) and Core Assessment Tool (CAT). PAT is conducted during emergency relief and early recovery phases of the project while CAT can be conducted anytime in the recovery or reconstruction phase. PAT and CAT[25] together access sustainability of current performance or take corrective measures in further project activities. QSAND access following environmental performance-

a. Emergency settlement site selection and construction materials ensure a manageable impact on the environment
b. Emergency relief materials do not induce environmental damage
c. Sustainable waste management, water, and energy use
d. Ensure people at emergency settlement do not overexploit or damage natural resources (IFRC and BRE, 2014)

- Environmental Stewardship Review for Humanitarian Aid (ESR)

Developed by American Red Cross and WWF, ESR is used as an environmental impact evaluation tool during early relief, recovery, and reconstruction phases of disaster response and may lead to

[24] QSAND tool was developed by BRE Global Limited on behalf of IFRC and measures sustainability performance of interventions

[25] PAT doesn't use scoring while CAT scores the performance based on sustainability criteria. Detailed methodology is available at https://www.qsand.org/resources/download-qsand-and-online-training/

detailed EIA study if required. The environmental impacts of the projects are assessed and prioritized using the environment issues matrix to design mitigation measures and take actions (American Red Cross and WWF, 2010b).

4.2.4 Monitoring, Evaluation and Reporting

The IFRC M&E Guide outlines the need to report activities and results achieved in environmental sustainability as a cross-cutting issue in all of its national societies' project/program management reports (IFRC, 2011a)**.**

The IFRC Framework for Evaluation has endorsed eight evaluation criteria for the evaluation of its humanitarian projects, programs, or policies. It includes environmental sustainability as one component of sustainability criteria to evaluate the long-term interventions. However, these sustainability criteria do not apply for emergency interventions (IFRC, 2011b).

The IFRC's result matrix (2016-2020) intended to measure the performance of secretariat as well as national societies' does not include indicators to measure environmental outcomes of its operations and activities. However, there is one outcome indicator that intends to measure the number of people reached through environmental education and awareness programs (IFRC, 2015).

4.2.5 Collaboration and partnerships

The IFRC acts as co-chair of the Global Shelter Cluster in the UN IASC Humanitarian Cluster System along with UNHCR and leads shelter cluster in natural disasters. As a cluster convener, it coordinates inter-agency shelter activities in emergency response as well as extends its deep expertise in location selection and technical design of environmentally friendly emergency settlements (IFRC, n.d.). IFRC, in collaboration with Catholic Relief Service, led the revision of Shelter and Settlement chapter of the Sphere Handbook[26] which includes minimization of negative

[26] The Sphere Handbook outlines minimum standards in humanitarian action across various sectors.

environmental impact as a minimum standard[27] in shelter and settlement assistance (Sphere Association, 2018).

The IFRC has been partnering with Swedish and Australian national societies and host governments to prepare environmental country profiles as a part of its GRA. These profiles aim to identify environmental context and major environmental issues as part of its emergency preparedness to be considered during disaster response (IFRC, 2019e). Furthermore, IFRC supports to strengthen the capacities of its national societies to adopt environment-friendly practices (IFRC, 2019e).

The IFRC network has several collaborations with WWF[28] regarding the development of assessment tools and training materials. The American Red Cross and WWF have developed ESR assessment tool (American Red Cross and WWF, 2010b). Both organizations also collaborated to prepare Green Toolkit to train humanitarian practitioners on environment-friendly approaches (American Red Cross and WWF, 2010a). IFRC also collaborated with BRE Global to develop the QSAND assessment tool[29] (American Red Cross and WWF, 2010a).

4.2.6 Environment Management System

While there is no standardized EMS within the IFRC network, it is committed to reduce the environmental impact and adore green practices in its in-house operations. IFRC maps and reports its GHG emissions on a timely basis. The particular focus of IFRC and ICRC is to limit energy use by shifting to renewable sources and sustainable management of water and waste in its office premises (IFRC, 2020).

The ICRC's Framework for Sustainable Development prioritizes the need to reduce its environmental and climate footprint and preparation of road maps to implement environmental management in headquarters and field offices. The framework also includes the use of video conferencing to reduce paper use and travel, vehicle tracking system to optimize vehicle use, and

[27] For detailed environmental sustainability standards and indicators, see https://spherestandards.org/wp-content/uploads/Sphere-Handbook-2018-EN.pdf
[28] This is to materialize the IFRC's expertise of emergency response and WWF's expertise in environment
[29] BRE Global is UK based research organization specializing in environment

management of hazardous and other waste in office premises as primary areas of intervention (ICRC, 2012).

ICRC measures the environmental performance of its headquarter and delegations in certain indicators biennially. The key environmental indicators to access the environmental management in its delegations are environmental footprints, diesel use, primary emergency consumption waste by type and disposal (qualitative indicator), and total water withdrawal (ICRC, 2017).

4.2.7 Green Procurement/ Reverse Logistics

Greening the relief supply chain is considered as an important component of its GRA. The IFRC has developed a plan of action for the greening supply chain, which prioritizes GHG emissions assessment on its supply chains. Some assessments are already taken, and the GHG accounting system is expected to be implemented in all its supply chains (IFRC, 2018). The IFRC and ICRC establish contract specifications to ensure construction materials and other relief items are sustainably sourced. As a criterion for supplier selection, it ensures the manufacturing company has implemented an EMS (ICRC, 2016).

Moreover, procurement and logistics managers are trained to ensure the construction materials for emergency settlements are recyclable and reusable; and are procured from local sources to the possible extent to reduce the transportation distance. Also, considerations are made to reduce plastic and metal bands' packaging (American Red Cross and WWF, 2010a).

CHAPTER 5: CASE STUDY OF DEVELOPMENT ORGANIZATIONS

5.1. UNITED NATIONS DEVELOPMENT PROGRAMME

5.1.1 Policy Context

UNDP's Strategic Plan (UNDPSP) 2018-2021 commits on extending policy and capacity support to governments to ensure environmental sustainability. The Plan aims to enhance peoples' resilience to shocks and crises through building capacity of governments to respond to environmental degradation and climate change (UNDP, 2017a). Furthermore, the signature solutions for development contexts outlined in the UNDPSP include two environmental priorities: nature-based solutions and strengthened ecosystem management for food security and sustainable livelihood; and increasing access to affordable clean and renewable energy for sustainable solutions (UNDP, 2017a).

UNDP has adopted environmental sustainability as an overarching policy to mainstream environment in all its programs and project to support sustainable development. The main environmental policy document 'Environmental and Social Standards' (ESS) sets systematic environmental mainstreaming objectives for UNDP to avoid, mitigate or minimize the adverse impacts; strengthen environmental outcomes, develop the capacity to manage environmental risk and effective stakeholder engagement in its programs and projects (UNDP, 2014a). UNDP seeks to achieve its principal mandate of reducing poverty and inequity while also integrating environment and climate change in the design of development cooperation with program countries and implementation partners. Added, a precautionary approach is prioritized to conserve the natural environment and enhance climate resiliency (UNDP, 2014a).

UNDP has also prioritized environmental considerations in other sectoral policies. UNDP's Energy Strategy (2017-2021) stress on the energy and environmental sustainability linkage. Realizing the impact of fossil fuels and biomass energy on GHG emission, global climate change, deforestation, and land degradation; the strategy mandates UNDP to partner with countries to advocate and extend technical expertise towards renewable energy sources (UNDP, 2016a).

UNDP's strategy for working with the private sector acknowledges the need to work with the private sector in developing countries to promote inclusive markets in a way that addresses environmental sustainability. This strategy stress UNDP's medium-term engagement in pro-poor economic sectors and markets to develop enterprises focusing on climate resilient green agricultural commodities and energy (UNDP, 2012a).

5.1.2 Country Programming

UNDP has adopted a systematic approach to mainstream climate change into its country programming and national development processes. UNDP provisions country climate change mainstreaming team, which consists of UNDP country focal point, national climate change coordinator, and climate risk expert (UNDP, 2012b). This team is entrusted to prepare country climate profile and map of institutions and stakeholders involved in climate change related activities. Further, relevant country policy, framework, or project documents are selected for climate risk assessment, and finally, climate change is systematically mainstreamed into revised documents (UNDP, 2012b). UNDP has also prepared a detailed guideline for mainstreaming dryland issues in national development frameworks. The UNDP's approach to mainstream dryland issues includes identification of impacts, stakeholder and capacity assessment, building awareness and partnerships, and systematic integration of dryland issues in national development frameworks (UNDP, 2008b).

UNDP's country priorities and programming are directed by UN Development Assistance Frameworks (UNDAF)[30]. The content analysis of UNDAFs implemented since 2019[31] reveals five environmental priority areas in UNDAFs: Climate resilience and adaption, disaster risk management and early preparedness, sustainable natural resource management, biodiversity conservation, clean energy, and sustainable transportation (See Annex 4).

The UNDAFs prioritize the national environmental capacity development approach through policy support, climate financing, technical cooperation, and advocacy to enable governments to strengthen national systems and environmental governance. Multiple entry points for mainstreaming are identified including administrative and budgetary systems, planning and

[30] As a principle implementing agency for UNSDGs, UNDP's country programming abides by UNDAFs
[31] A total of 16 UNDAFs has been approved since 2019 until April 2020

operational frameworks, community-based participatory natural resource management, promotion of public-private investments in green technologies, promotion of indigenous knowledge, and climate-adaptive social and behavioral change communication among others (See Annex 4).

5.1.3 Assessment and Integration Tools

5.1.3.1 Environmental and social standards (ESS)

Since 2015, UNDP has set the detailed ESS to ensure its programs and projects strictly abide by the overarching principle of environmental sustainability[32]. The ESS has outlined the project level ESS for all UNDP projects and assessment mechanisms to ensure standards are respected. The environmental standards are elaborated in Table 6.

Table 6 Environment-related standards in UNDP's ESS

Environment-related Standards in ESS	ESS requirements
Standard I – Biodiversity conservation and sustainable natural resource management	Precautionary approach, assessment, use of experts, siting preference, habitat conservation, biosafety, water management
Standard II – Climate Change mitigation and adaptation	Climate change risk assessment, GHG emission reduction, emission tracking
Standard VII – Pollution prevention and resource efficiency	Pollution prevention, waste management, pesticide control, hazardous waste management

(Source: UNDP, 2014a)

All UNDP funded projects need to meet environmental standards, ensuring no harm to biodiversity, sustainable natural resource management, climate change mitigation and pollution prevention and increased resource efficiency.

5.1.3.2 Screening and Assessment tools

All UNDP funded projects are mandated to go through environmental screening and categorization processes during project design through the standard screening template. The template consists of questions to access the environmental impact, probability, and significance of environmental risks. Based on this information, projects or programs are categorized into low, medium, or high-risk categories (UNDP, 2014a). The low-risk project is exempted for further assessment (UNDP, 2014a).

[32] Environmental Sustainability is one of three principle of UNDP ESS

Three assessment tools are advised for medium risk projects—first, Limited environmental assessment for identified specific risks like air quality or water resource impact study. Second, specific risk/hazard assessment like fire safety assessment. Third, environmental and social audits for the projects to determine the impact of the existing project before UNDP entered into it (UNDP, 2016b).

For high-risk projects or programs, UNDP prioritizes two environmental impact evaluation tools. Strategic Environment and Social Assessment (SESA) tool is used to examine broader sustainability issues resulting from 'upstream activities' like policy change, plan, or programs (UNDP, 2016c). For the individual high-risk projects, Environment and Social Impact Assessment (ESIA) is recommended to examine impacts and risks in quantitative terms and design relevant mitigation measures (UNDP, 2016c). Environment Management Plans are prepared as part of these assessments and systematically integrated into the course of program or project (UNDP, 2016c).

5.1.3.3 Stakeholder engagement and response mechanism

UNDP provisions all screening and assessment reports are prepared with the due engagement of stakeholders and affected populations. Relevant reports are disclosed early to the stakeholders to internalize their responses (UNDP, 2014a).

5.1.4 Monitoring, Evaluation and Reporting

UNDP lays out exclusive monitoring needs throughout the life cycle of funded projects against its ESS through the project monitoring plan. The monitoring need incorporates the tracking of implementation of environmental management plans required by SES, tracking of corrective measures against public grievances, and public disclosure of monitoring reports (UNDP, 2014a). UNDP provisions third-party review of its monitoring mechanism wherever required (UNDP, 2014a). Apart from the response mechanism, as stated in section 5.1.3.3, UNDP has established the Social and Environmental Compliance Unit (SESU) in 2014 as an independent review body. The person affected by the UNDP funded program or project may file a complaint against non-

compliance to its ESS or any environmental commitments, and in the case of non-compliance corrective measures are suggested, and implementation is monitored with detailed monitoring plan (UNDP, 2014b).

The UNDP M&E Guidelines also state the need to integrate the environmental performance of the programs and projects to be included in the M&E framework (UNDP, 2009). The UNDP Evaluation Guidelines outline the need to assess the short and long term environmental impacts (environmental sustainability) as well as performance against its ESS in its evaluation of programs or projects (UNDP, 2019).

5.1.5 Collaboration and Partnership

UNDP demonstrates an extensive partnership in environmental initiatives and capacity building projects with other UN agencies, governments, private sector, and civil societies. UNDP and UNEP jointly launched the Poverty-Environment Initiative (PEI) in 2005, which works extensively with governments, bi-lateral donors and civil society actors to develop an integrated approach for poverty reduction and natural resource management within periodic plans of countries and budget process (UNDP and UNEP, 2016). UNDP, FAO, and UNEP have been implementing the UN-REDD program which extensively partners with World Bank's Forest Carbon Partnership Facility (FCPF), donors, and governments to extend policy support, finance, and technical expertise to adopt an action plan to manage forests and deforestation for emission reduction (UNDP, FAO and UNEP, 2015).

UNDP has partnered with ILO, UNEP, UNIDO, and UNITAR in j Partnership of Action on Green Reverse Logistics (PAGE) initiative which operates in collaboration with donors and environment networks to extend policy advice, technical expertise, and capacity development to reframe countries' economic policies towards reverse logistics and sustainability (PAGE Secretariat, 2020). UNDP has been partnering as the founding implementing agency for Green Environment Facility (GEF) to implement its small grants program for environmental sustainability around the world (UNDP and GEF, 2019). UNDP also acts as an implementing agency for the Green Climate Fund (GCF) and assists countries to access finance from GCF for environmental sustainability programs and projects (GCF, 2020). UNDP collaborates with FAO to implement Integrating Agriculture in National Adaptation Plans Program (NAP-Ag) (FAO, 2016).

5.1.6 Environment Management System

UNDP is committed to green its operations and day to day office activities to be resource-efficient and sustainable. The global UNDP operations have been climate neutral since 2015 (UNDP, 2020). The UNDP reports its GHGs emissions from travel, fuel consumption from vehicles and cooling and heating in offices. In September 2019, the UNDP launched the 'Greening UNDP Moonshot' program with a target of reducing its GHG emission by 25 percent within 2025 and 50 percent by 2050. It also includes the implementation of the waste management system and minimized use and re-use of natural resources in its premises (UNDP, 2020).

UNDP has set up consistent monitoring and disclosing system on its environmental performance. It is a pioneer among UN agencies in reducing its power consumption through the use of solar power (UN Environment, 2019). In 2019, more than 20 UNDP offices installed photovoltaic electricity systems. Other practices include green building renovations, bicycling programs, and staff training (Greening the Blue, 2019). UNDP envisions establishing a UNDP Challenge Fund to finance sustainability solutions in its offices (UNDP, 2020).

5.1.7 Green Procurement/ Reverse Logistics

UNDP prioritizes more sustainable production and consumption practices through the procurement of goods and services with the lowest environmental impact. UNDP's latest Procurement Strategy commits on more sustainable procurement through several strategies (UNDP, 2015). To the feasible extent, UNDP incorporates the environmental criteria in its purchasing evaluations and develop monitoring mechanisms to assure vendor compliance in its supply chains (UNDP, 2015). Other strategies include piloting innovations in supply chain management, and award criteria for best-performing contractors (UNDP, 2015). UNDP's procurement policy extends the principle of 'Best Value of money' to incorporate life cycle costs and benefits as well as the fulfilment of its environmental objectives (UNDP, 2018).

The UNDP's primary procurement considerations include energy efficiency, reduced packaging and packaging take-back contracts, procurement of products prepared from recycled materials, and

recycling potential of the products. In many cases, suppliers' environmental performance and capacities for green products are also considered (UNDP, 2008a). The UNDP supplier code of conduct requires suppliers to have an effective environmental policy along with waste and hazardous chemical management systems, and emission monitoring (UNDP, 2013).

5.2 UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

5.2.1 Policy context

USAID Policy Framework[33] strives its programs extend 'do no harm' principle to the environment by adopting environmentally sound design and management of its projects (USAID, 2019a). As a federal agency, the USAID operations are abided by the US national laws. The National Environment Protect Act (NEPA) of the USA requires USAID to access the environmental impacts of its proposed action and conduct a public review before making decisions[34]. Added, USAID is also endured to comply with NEPA and access the environmental impacts of its bilateral actions by the Executive Order of the US president[35]. The US Federal regulations (22 CFR 216)[36] under the Foreign Assistance Act (FAA), 1961 incorporates the environmental procedures to be followed by USAID and its implementing partners. The FAA mandates USAID to assess the impact of its activities on the environment and provide special considerations to natural resources, tropical forests, and endangered species in country strategies, operational decision making, and implementation processes[37].

The policy directives of USAID (ADS) incorporates its environmental requirements and compliance mechanism across agency programming and operations. The ADS Chapter 204-Environmental Procedures, states the requirement of environmental coordinators at the agency, mission, and bureau level. It also provisions mandatory environmental assessments like Initial Environment Examination (IEE) or EIA (USAID, 2013a). However, it exempts disaster response operations from compliance to environmental procedures for up to one year (USAID, 2013a). The ADS Chapter 201 'Program Cycle Operational Policy' details the procedures of environmental examination in planning processes and adaptive measures to be adopted in the program or project cycle (USAID, 2020a).

[33] USAID Policy Framework is a guiding USAID policy document
[34] National Environment Protection Act (1969), Retrieved from https://www.fws.gov/r9esnepa/RelatedLegislativeAuthorities/nepa1969.PDF
[35] Executive Order 12114--Environmental effects abroad of major Federal actions, Retrieved from https://www.archives.gov/federal-register/codification/executive-order/12114.html
[36] Retrieved from https://www.govinfo.gov/content/pkg/CFR-2012-title22-vol1/pdf/CFR-2012-title22-vol1-part216.pdf
[37] The details are enlisted in section 117, 118 and 119 of FAA, Retrieved from https://www.usaid.gov/environmental-procedures/laws-regulations-policies/faa

USAID has prepared the sectoral environmental guidelines for twenty-one sectors to minimize the impact of its activities on the environment and climate change through preventive or mitigative measures in its program design and implementation processes (USAID, 2020b). The USAID Environmental and Natural Resources Management Framework (ENRMF) states that the investment of the agency in all sectors should bring the environmental considerations to the forefront by prioritizing sustainable natural resource management, conservation of land, marine, and coastal areas and combating conservation crime (USAID, 2019b). The USAID has prepared Green Infrastructure Resource Guide (2017) with a detailed outline of green infrastructure solutions across eleven intervention domains including erosion control, flood mitigation, energy efficiency, food security, and pollution abatement among others. It also outlines the engineering design and indicators for the performance monitoring of green infrastructures (USAID, 2017a).

5.2.2 Country Programming

USAID's country priorities and strategies are guided by its Country Development Cooperation Strategies (CDCS). The process of developing and approving individual CDCS systematically incorporates rigorous environmental analysis. As a part of the CDCS preparation, USAID missions are obliged to conduct mandatory country climate change analysis to identify context-specific climate-related risks and vulnerabilities of all the countries. The evidence from this analysis is used to inform the strategic environmental screening of projects and activities in their design phase. Furthermore, CDCS assesses opportunities for GHG emission mitigation and integrate them at strategic level decision making (USAID, 2019c).

Moreover, tropical forests and biodiversity analysis is also mandatory for the preparation of CDCSs. The USAID mission needs to access the current status and challenges for the conservation of biodiversity and tropical forests in their jurisdiction (USAID, 2019c). This assessment also includes the identification of necessary actions for tropical forests and biodiversity conservation as well as the analysis if proposed USAID activities are line with conservation efforts (USAID, 2019c).

CDCSs are prepared by the USAID missions present in the host countries. The content analysis of CDCS implemented since 2019[38] reveals that though the environmental and climate concerns are not directly prioritized as mission's direct development outcome[39] areas; USAID carries out a compulsory country-level climate risk assessment to screen and outline the potential risks and mitigation actions for each of its country development outcome areas. Climate risk management options are also stated for the identified risks.

Three strategic areas for climatic risk management were identified in CDCS; namely climate change mitigation and adaptation, sustainable natural resources management, and GHG emission reduction (See Annex 5). Strategies to mainstream the climate risks across its programming include advocacy and policy support, technical and institutional capacity-building support, support in climate research, climate data monitoring and analysis, collaboration with the private sector to enhance investment in green technologies among others (See Annex 5).

5.2.3 Integration and assessment tools

5.2.3.1 Environmental compliance procedure (EPC)

Environmental assessment is mandatory for all the USAID funded activities. Environmental procedures are incorporated early in the project design process to identify potential environmental risks. USAID provisions no activity under its funding are approved without environmental documentations (USAID, 2018). The first step of EPC is the screening of proposed activities into environmental risk categories. The emergency activities and very-low risk activities are categorically exempted from further investigation[40]. All other activities requiring further investigation are required to undergo an IEE. The IEE examines if the significant adverse impacts are likely from the proposed activity and outline the mitigation and monitoring strategies. However, if the screening process finds proposed action with high environmental risks, a detailed EIA study is undertaken. The EIA study analyses the impact in detail and may recommend alternatives for the impact. EIA study also prepares a detailed environmental management plan and monitoring requirements throughout implementation (USAID, 2018).

[38] CDCSs for 8 USAID country missions have been implemented since 2019
[39] Development outcomes are the country level goals for USAID set in CDCS
[40] Activities including education, training, workshops, technical assistance, nutrition, family planning without foreseeable adverse impact are categorically excluded from further investigation

5.2.3.2 Environmental Officers

USAID has provisioned environmental officers to foresee and ensure the implementation and compliance of its environmental compliance procedure, as stated in its operational policy (ADS). At the agency-wide level, the Agency Environmental Officer (AEO) coordinates agency-wide implementation of environmental requirements and procedures (USAID, 2013a). There is also the provision of Bureau Environmental Officer (BEO) in all regional bureaus of the USAID. The BEO oversees and ensures compliance with environmental requirements and procedures in all operating units and ensures staffs in the bureau are trained on the agency's environmental procedures (USAID, 2013a). At the country level, the Mission Environmental Officer (MEO) and Regional Environmental Advisors (REA) assist and advise across operating units on preparing environmental documentation, undertake compliance auditing and compliance evaluations (USAID, 2013a).

5.2.4 Monitoring, Evaluation and Reporting

USAID implements detailed environmental compliance monitoring against the baseline conditions and reporting system in all funded activities with detrimental environmental impacts. The environmental assessments (IEE or EIA) before the approval of projects or projects lead to the preparation of Environmental Mitigation and Management Plan (EMMP) for systematic adaptation of mitigation measures against identified environmental impacts (USAID, 2013b). The EMMP is incorporated with a project or program operational plan. The EMMP also sets the indicators and criteria for monitoring the progress on implementation as well as the effectiveness of mitigation measures. It also enlists the timing and responsible party of the monitoring needs. The results from monitoring are recorded in an EMMP template (USAID, 2013b).

As the reporting mechanism, Environment Mitigation and Management Report (EMMR) needs to be submitted annually or as specified in EMMP by the project or program implementing agency (USAID, 2013a). EMMR is incorporated into routine activity implementation performance reports. At the project or program closeout, the implementing mission or partner needs to prepare Record of Compliance (RoC) to assure environmental compliance during its lifecycle (USAID, 2020c).

5.2.5 Collaboration and Partnership

USAID's partnership is primarily with country governments, local implementing NGOs, and civil society organizations at the country and community level. Moreover, USAID is a partner in various collaborative environmental initiatives listed in the UNSDGs Partnership platform. The USAID has partnered with GIZ, UNDP, SPREP, and DFAT among other agencies to implement the Choiseul Integrated Climate Change Adaptation Programme (CHICCHAP) in Solomon Islands (UN, 2014). The USAID has been partnering with Credit Suisse AG and Athelia Ecosphere for the development of a market-based financing mechanism for sustainable agroforestry and ecosystem conservation and sustainable development bonds in around 20 countries (UN, 2015). Another notable USAID partnership is with SIDA, BMZ and others in 'Powering Agriculture: An Energy Grand Challenge for Development initiative' to identify and develop sustainable solutions to accelerate clear energy for increasing agriculture productivity in developing countries (UN, 2012).

USAID's Public-Private Partnership Database reports 189 partnership initiatives implemented in the environment sector since 2001 around the globe (USAID, n.d.). The resource partners include public companies like Coca Cola and Google, UN agencies, bilateral donors, private consulting companies, research institutions, universities, Lions club, governments, and ministries among others (USAID, n.d.).

5.2.6 Environment Management System

USAID's Strategic Sustainability Performance Plan outlines the agency's strategy to enhance the environmental performance of in-house operations. The agency's sustainability program includes the use of environmentally favorable electronic equipment and environment-friendly practices in disposing them (USAID, 2017b). This also extends to the adoption of a policy on reduction of energy usage and shift to alternative energy in overseas missions. Sustainable practices like waste and water consumption reduction are also adopted (USAID, 2013c). USAID Washington reports GHG emissions and subsequently plans to reduce emissions by minimizing business air travel and other commuting. Green infrastructure practices and life cycle cost analysis of buildings are incorporated in the design, construction, and operation of buildings and facilities. In 2016, USAID completed the first green-rated overseas building in South Africa where 60% of the steel used for

construction had recycled or re-used components (USAID, 2017b). USAID offices adopt a recycling mechanism for their paper, aluminum, and plastic wastages (USAID, 2017b). However, compiled GHG emissions from USAID overseas missions is not reported.

5.2.7 Green Procurement/Reverse Logistics

The significant policy gap to foster green procurement mechanisms was observed in the USAID policy guidance. The ADS Chapter 533 (USAID, 2014) which is the agency's policy on Purchasing for USAID Overseas Activities do not include any environmental criteria for procurement of power systems, office furniture, or vehicles. Similarly, ADS Chapter 300 (USAID, 2019d) Agency Acquisition and Assistance (A&A) Planning Policy do not incorporate environmental consideration in procurement contracts.

CHAPTER 6: CRITICAL ANALYSIS AND COMPARISON

6.1 Institutional and operational mainstreaming strategies

Mainstreaming is strategic to integrate cross-cutting issues across the design, implementation, monitoring, and evaluation of policy or programs of organizations (OECD, 2014). However, there is no consensus on a single mainstreaming mechanism for cross-cutting issues in various scenarios and contexts. In the following sections, I intend to analyze the findings of case study of selected humanitarian and development organizations, along with similarities and differences.

At the institutional level, mainstreaming can be initiated through the creation or revision of existing policies, regulations, or corporate plans (Wamsler et al., 2014; Wamsler, 2014; Roberts & O'Donoghue, 2013; Sitas et al., 2014; OECD, 2014). While WFP, UNDP, and USAID have independent environment policy; IFRC is currently developing its environmental policy. The operational plans of organizations prioritize environmental mainstreaming to achieve their organization-specific mandates. WFP's strategic plan (2017-2021) aligns its strategic objective of achieving food security through the promotion of healthy ecosystems, improved land, and soil quality and adaptation to climate change. IFRC strategy 2030 prioritizes the integration of climate risk and environmental management in its DRR activities; recognizing climate and environmental crises as a major threat for the next decade. Meanwhile, UNDP's strategic plan (2018-2021) envisions to integrate environment and climate change in development cooperation through policy and capacity support to the governments. USAID's guidelines on ENRMF states the prioritized considerations on sustainable natural resource management, conservation of land, marine and coastal areas, and conservation crime across all sectors of agency investment. While the USAID[41] and UNDP[42] have a long-standing history of environmental policy initiatives; WFP prepared its environment policy only in 2017[43] whereas IFRC is still on the process of preparing it.

At the operational level, mainstreaming can take programmatic form through the integration of cross-cutting issues into core activities, programs, or on-ground projects (Holden, 2004; Roberts

[41] USAID has been following environmental procedures since 1961 under FAA
[42] UNDP extensively involved in area of environment following 1992 UN Conference in Environment and Development
[43] Although the first environment policy was prepared in 1998, it was barely operationalized (Kliest & Singh, 2012)

and O'Donoghue, 2013; Wamsler et al., 2014). This was evaluated using three criteria - environmental considerations in country programming and emergency operations; provision of assessment and integration tools; and monitoring, evaluation, and reporting mechanisms. The country plans of all organizations integrate environment and climate considerations among their prioritized working areas. The common areas of concern are climate-based adaptation, sustainable natural resource management, disaster risk reduction, and early preparedness. USAID carries out separate climate risk screening[44], assessment, and mitigation plans for each of its country's outcome areas as part of its individual CDCS development. Both the development organizations were found to carry out country-level climate risk assessment profiles as part of country plan formulation; which is not mandatory in WFP and IFRC. While the approach of WFP and IFRC is more towards building climate adaptation and natural disaster risk reduction capacity at the community level; UNDP and IFRC take country capacity development and policy advocacy approach towards better environmental governance and climate change mitigation.

The deployment of environment officers is one of the tools used to integrate environmental consideration during project or program planning and ensure environmental compliance during implementation. While IFRC recently started deploying environment field advisors as part of its Green Response Initiative; USAID has permanent provision of environment officers at the agency, bureau, regional, and mission offices.

Regarding major environmental integration tools; there is a distinct difference between humanitarian and development organizations. While in most of the cases, emergency response is exempted from environmental compliance; development agencies have systematic environmental assessment requisite and procedure. Recently, WFP prepared and has been piloting its Environment and Social Safeguard Framework in few countries which incorporate minimum programmatic and operational environmental standards; environment risk screening and categorization process, and EMS. IFRC started the green response initiative in 2014[45], thereby expanding 'do no harm' principle to environment and ecosystems. IFRC strives to deliver environment-friendly humanitarian assistance, especially in logistics, supply chain, shelter and settlements, and WASH operations. However, USAID has been implementing its Agency

[44] The recently adopted WFP's ESSF also requires environment risk pre-screening of all activities in CSPs
[45] Green response working group was formally set up in 2014

Environment Procedure since 1976. All USAID funded activities are obliged for environmental procedures, including environmental screening, impact assessment, and mitigation plans. UNDP has set up Environmental and Social Standards (ESS) in 2015. ESS includes the minimum environmental standards and requirements for its activities across various environmental domains. UNDP requires a compulsory environment impact screening and categorization for all its funded activities with the requirement of extensive SESA or ESIA for higher-risk categories.

The provision of monitoring environmental performances among organizations across organizations is fragmented. Although WFP's CRF 2017-2021 includes one indicator to measure if its programs are implemented without any environmental harm, not all the country offices reported in this indicator in 2018. There is no indicator to measure the environmental performance of its secretariat or country offices in the IFRC's Result Matrix (2016-2020). However, UNDP has provisioned constant monitoring of funded activities against its ESS throughout the project life cycle. UNDP has also provisioned independent Social and Environment Compliance Unit to process the complaints from people affected by its funded projects or programs. USAID has provisioned detailed environment compliance monitoring systems and periodic environment mitigation and monitoring reporting. It also requires a report of environmental compliance to close out its funded projects.

At the institutional level, inter-organizational mainstreaming strategy helps to share experiences on best practices and take collective actions to mainstream topic under consideration among organizations (Roberts and O'Donoghue, 2013; Wamsler, 2014; Pelling et al., 2008). All studied organizations hold an extensive partnership with host country governments, NGOs, civil society and the private sector to extend policy support, capacity building, and technical expertise in environmental and climate issues. WFP as the lead agency for global logistics humanitarian cluster and IFRC as the lead for shelter cluster in natural disasters can play a significant role to mainstream environment within respective clusters. These organizations also collaborate through various working groups within UN-EMG or UNEP. Efforts have also been made to mainstream environment through joint initiatives like the UNDP-UNEP Poverty-Environment Initiative and the UN-REDD program.

Furthermore, at the institutional level, environmental mainstreaming can also take place through alteration or modification of organizational management practices (Burch, 2010; Holden 2004;

Wamsler et al., 2014). This study explored the environment management practices in organizations to reduce their in-house carbon footprint. All the organizations had some sort of waste, waste, and energy management systems. However, only WFP and UNDP have been carbon neutral until now. There are timely reporting mechanisms on GHG emissions within WFP, IFRC, and UNDP. However, in USAID, no compiled GHG emission reporting from its overseas mission was found.

At the operational level, through add-on mainstreaming, organizations can initiate new practices to mainstream specific issue (Wamsler et al., 2014; Roberts and O'Donoghue, 2013; Holden, 2004). Increasing concern on green procurement policy among humanitarian and development organizations can be categorized under add-on mainstreaming. The common strategies identified among organizations are local food procurement to shorten the supply chain, life cycle approach on evaluation of procurement items and considerations to supply chain waste management through reverse logistics. UNDP adopts the inclusion of environmental criteria in purchasing evaluations and monitoring mechanism to assure vendor compliance in the supply chain. However, no significant policy on greening procurement practice was observed in USAID.

6.2 Vertical and horizontal mainstreaming

Environmental mainstreaming can take a vertical pathway through a top-down approach coordinated by a strong entity or the horizontal pathway through the task force or cross-organizational working committees (Nunan et al., 2012). Humanitarian and development agencies can play roles in both vertical and horizontal mainstreaming approaches. WFP, as a strong cluster lead for logistics and IFRC as the lead agency for shelter in natural disasters, can coordinate for formulation and implementation of minimum environmental standards[46] among cluster members. Development agencies can lead the vertical mainstreaming process through conditional aid support to countries based on environmental performance indicators. This is also portrayed in compulsory environment compliance procedure and reporting mechanisms in all funded activities, especially in UNDP and USAID. Moreover, in all cases, organization-wide regulatory policies and strategies help to vertically mainstream the environment in a decentralized organizational setup. Vertical mainstreaming through country programming is in place via policy support, technical expertise support, and access to green climate funds.

[46] There is provision of minimum environmental standards in shelter cluster in sphere handbook

Meanwhile, inter-organizational collaboration and task force (for instance, Joint UNEP-OCHA Environment Unit (JEU) and UNDP-UNEP Poverty-Environment Initiative) signify horizontal mainstreaming. Within individual organization setup, the environment can be horizontally mainstreamed across departments. In the studied organizations, the environmental officers act as a focal person to oversee environmental concerns among non-environmental departments. Other horizontal mainstreaming practices identified are experience sharing, an adaptation of each other's best practices, and joint environmental initiatives across developing countries.

6.3 Humanitarian-Development nexus perspective

While the nexus approach of collective programming is still along initial discussion around its operating and funding modalities; there is no significant attention towards mainstreaming environment as a cross-cutting issue in nexus briefings and documentation. One of the underlying humanitarian-development divides in environmental mainstreaming comes from the widespread assumption that the environment does not fit within the mandate and time-frame of humanitarian action (JEU, 2014). However, increasing protracted nature of crises and multi-year operation timeframe of humanitarian assistance (ICRC, 2016) has raised the need to integrate the environment within humanitarian programming. Moreover, the need to the mainstream environment within nexus arise from the fact that environmental issues like climate change; and natural disasters can accelerate the crisis and need for longer-term relief and recovery interventions and at the same time such interventions can have a significant impact on the natural environment as well as (Brooke and Kelly, 2015).

Two mainstreaming approaches analyzed in this study are of significance regarding the NWoW. The provision of environmental safeguards, frameworks[47] , and environment assessment mechanisms to assure the minimum environmental standards in their operations by humanitarian and development actors ensures managing the needs of people while also protecting the environment. The technical and institutional capacity building of host governments (towards environmental governance, climate change adaptation, natural resources management, disaster risk management, and early warning systems among others) aligns with the humanitarian-development

[47] It is to be noted that examination of implementation of such frameworks and their efficiency is beyond scope of this study

imperative of not only managing immediate needs but also reduce risk and vulnerabilities in the longer term to build resilience.

The NWoW envisions the joint risks and vulnerability analysis as a part of collaborative planning (OCHA, 2017). This can be operationalized through the joint context-specific environmental and climatic risk analysis to plan collaborative actions for disaster management and climate adaptation in environmental and other crisis settings. The environmental field officers of humanitarian and development organizations can play a crucial role in common environmental risk and vulnerability analysis to inform the development of a contingency plan for emergency assistance and longer-term recovery programs.

CHAPTER 7: CONCLUSION

There is a need to link emergency relief and rehabilitation efforts with the development activities due to the increasing protracted nature of crises. The notion of joint humanitarian-development programming was accepted by stakeholders during the World Humanitarian Summit (2016). However, there is little discussion on strategies to mainstream the environment within the collaborative multi-year programming. On the one hand, the adverse impact of climate change and natural disasters are increasing cause of the humanitarian emergency, displacement, and need for rehabilitation efforts; whereas, on the other hand, humanitarian and development interventions themselves can pose negative environmental impacts and exacerbate the crisis. This entails the need to mainstream environment within nexus programming, not only to minimize environmental impacts while meeting the current needs but also to reduce associated longer-term environmental risks and vulnerabilities of people.

The purpose of this study was to explore how the humanitarian and development organizations mainstream environmental considerations across their institutional and operational mechanisms. For this, the case study of WFP and IFRC as leading humanitarian organizations; UNDP, and USAID as leading development agencies was carried out. The case studies were based on a methodological framework incorporating six mainstreaming strategies identified from various literature. Furthermore, mainstreaming practices were also explored from horizontal and vertical mainstreaming approaches. Finally, a brief analysis of the significance of the current mainstreaming approaches from the humanitarian-development nexus perspective was carried out.

At the institutional level, the organizations have been prioritizing the environmental concerns in their strategic plans either to reduce environmental footprints of emergency assistance or to integrate environment along with climate change, disaster risk management, or sustainable natural resource management aspects in development cooperation. The collaboration among organizations, governments, NGOs, civil society was evident in the studied organizations to launch joint initiatives, development of assessment tools or methodologies, experience sharing, or scaling up best practices. Regarding in-house operations, though only WFP and UNDP were found to be carbon neutral, there is increasing efforts to reduce in-house GHG emissions and adopt waste, water, and energy management practice in office premises of other organizations.

At the operational level, country programming documentation could be an entry point to examine the environmental mainstreaming efforts of organizations. The common areas of concern in the country plans of all organizations are climate-based adaptation, sustainable natural resource management, disaster risk reduction, and early preparedness. While the focus of the humanitarian organization is mainly at the community level; the development organizations adopt the country capacity building and policy advocacy approach towards better environmental governance and climate change adaptation. Distinct environmental integration tools incorporating various environmental safeguards and frameworks have been developed in all organizations, although in most cases emergency operations are excluded from environmental compliance. Whereas, in the case of development organizations, rigorous environmental impact assessment is needed as part of project and funding approval. However, there is a humanitarian-development divide on monitoring and reporting mechanisms on environmental performance. While there is constant environment compliance monitoring and reporting throughout the life cycle of projects within development agencies; no proper environment compliance monitoring provisions and practice were found among humanitarian operations. There are also growing concerns on green procurement practices, including supply waste management through local food procurement, shortened supply chains, and reverse logistics.

This study also found that humanitarian and development organizations play a role in both vertical and horizontal mainstreaming. Humanitarian organizations like WFP and IFRC can play crucial roles to incorporate environmental standards in respective humanitarian cluster systems; while development organizations can mainstream it vertically through conditional aid support on environmental performance or adaptation of specific environmental laws and regulations. The inter-organizational task-force, joint initiatives, experience sharing, and adapting each other's best practices signify horizontal mainstreaming among studied organizations.

Concerning nexus programming, the environment should be included in the common context analysis to identify the environmental risks and associated vulnerabilities. The current environmental safeguards and standards of humanitarian and development actors along with the environmental impact assessment tools and methodologies can be adapted according to the applicability to specific contexts based on the joint working framework. Moreover, the framework

should focus on building the capacity of government and institutions through policy and technical support to enhance resilience to environmental hazards and associated climatic risks.

This study, to a large extent, explores the current environment mainstreaming strategies within the humanitarian and development organizations but it does not examine the effectiveness of such strategies to mainstream environment or identify their pros and cons. Hence, future research work can evaluate the effectiveness of these strategies to provide a more comprehensive perspective on environmental mainstreaming.

REFERENCES

American Red Cross and WWF. (2010a). *Green response and recovery: Training toolkit for humanitarian aid*. Retrieved April 10, 2020, from https://c402277.ssl.cf1.rackcdn.com /publications/1101/files/original/Combined_GRRT.pdf?1507656721

American Red Cross and WWF. (2010b). *Green guide to environment impact assessment tools and techniques.* Training Module. Retrieved April 10, 2020, from https://www.sheltercluster.org/sites/default/files/docs/GRRT%203%20-%20Environmental %20Impact%20Assessment%20Tools%20and%20Techniques.pdf

Barrett, E., Murfitt, S., & Venton, P. (2007). *Mainstreaming the environment into humanitarian response: An exploration of opportunities and issues.* London: DFID. Retrieved March 22, 2020, from https://postconflict.unep.ch/humanitarianaction/documents/01_01-03.pdf

Beltrami, S. (2018). Rethinking packaging, reducing waste: What environmental sustainability means for the world's largest humanitarian organization. *WFP Blog*. Retrieved April 7, 2020, from World Food Programme Insight: https://insight.wfp.org/rethinking-packaging-reducing-waste-43be4a82eeff

Brooke, R., & Kelly, C. (2015*). Mainstreaming environment and climate change into humanitarian action*. Topic Guide. Retrieved May 19, 2020, from http://dx.doi.org/10.12774/eod_tg.june2015.brookeretal

Burch, S. (2010). Transforming barriers into enablers of action on climate change: Insights from three municipal case studies in British Columbia, Canada. *Global Environment Change, 10*, 287-297. Retrieved May 8, 2020, from http://dx.doi.org/10.1016/j.gloenvcha.2009.11.

Cravito, A., Lantana, C. F., Lantagne, D. S., & Nair, G. B. (2011). *Final report of the independent panel of experts on the cholera outbreak in Haiti*. Retrieved May 19, 2020, from https://reliefweb.int/sites/reliefweb.int/files/resources/Full_Report_525.pdf

Creswell, J., & Creswell, J. (2017). *Research design: Qualitative, quantitative and mixed method approaches.* London: Sage publications.

Cue, W. (n.d.). *Joint UNEP/OCHA environmental unit at environmental and humanitarian crossroads.* Geneva: OCHA.

Dalal-Clayton, B., & Bass, S. (2009). *A guide to environmental mainstreaming.* London: International Institute for environment and development. Retrieved March 25, 2020, from https://www.environmentalmainstreaming.org/documents/Guide%20to%20EM%20(Part%201)%20DRAFT%2020%20Jan%2009).pdf

DANIDA. (2017). The world 2030: *Denmark's strategy for development cooperation and humanitarian action.* Copenhagen: Danish International Development Agency.

DFID. (2013). *DFID environment guide: A guide to environmental screening*. London: Department for International Development.

ELAW. (2008). *Environmental impact assessment for Hugh Parkey's Belize Adventure Island (formerly Spanish Bay Resort)*. Environmental Law Alliance Worldwide. Retrieved March 25, 2020, from https://elaw.org/system/files/Hugh%20Parkey%20EIA.pdf

Emergency capacity building project. (2007*). Impact measurement and accountability in emergencies: The good enough guide.* Oxford: Oxfam GB. Retrieved March 26, 2020, from https://www.globalprotectioncluster.org/wp-content/uploads/ECB-Good-Enough-Guide_0.pdf

European Commission. (2006). *Environment fact sheet: Industrial development.* Retrieved March 26, 2020, from https://ec.europa.eu/environment/archives/wssd/pdf /fs_industrial_development.pdf

European Commission. (2016). *Buying Green! A handbook of green public procurement (3rd edition)*. Belgium: EU publication office.

European Environment Agency. (2005). *Environmental policy integration in Europe: State of play and an evaluation framework.* Luxembourg: Office for Official Publications of the European Union.

Fanning, E., & Fullwood-Thomas, J. (2019). *The Humanitarian-Development-Peace Nexus: What does it mean for multi-mandated organizations?* Oxford: Oxfam GB. Retrieved May 19, 2020, from http://hdl.handle.net/10546/620820

FAO. (2016). *Integrating Agriculture in National Adaptation Plans Programme (NAP–Ag): Safeguarding livelihoods and promoting resilience through National Adaptation Plans.* Rome. Retrieved April 17, 2020, from http://www.fao.org/3/a-i5038e.pdf

FIPL. (2019). *Final Environmental Impact Assessment (EIA) Report: Development of 8 lanes (Greenfield Expressway) from Firozpur Jhirka (Ch. 79.394 Km) to Itawa (Ch. 284.000 Km).* Retrieved May 19, 2020, from http://environmentclearance.nic.in/writereaddata/EIA /31012019DMPSMPVBFinalEIAReport.pdf

GCF. (2020). *GCF Handbook: Decisions, Policies and Frameworks.* Incheon City: GCF. Retrieved April 17, 2020, from https://www.greenclimate.fund/sites/default/files/document/gcf-handbook.pdf

Greening the Blue. (2019). *Greening the Blue.* Retrieved April 15, 2020, from United Nations Development Programme (UNDP): https://www.greeningtheblue.org/what-the-un-is-doing/united-nations-development-programme-undp

Holden, S. (2004). *Mainstreaming HIV/AIDS in Development and Humanitarian Programmes.* Oxford: Oxfam Publishing.

IASC. (2012). *Guidance Note: Humanitarian Indicator Registry.* Geneva: OCHA.

IASC. (2014a). *Overview of the progress of mainstreaming environment into humanitarian guidance and tools.* Geneva: OCHA.

IASC. (2014b). *Strategic response planning guidance.* Geneva: OCHA.

IASC. (2015a). *IASC reference module for the implementation of humanitarian programme cycle.* Retrieved March 28, 2020, from https://interagencystandingcommittee.org/system /files/hpc_reference_module_2015_final_.pdf

IASC. (2015b). *Multi-sector initial raip assessment guidance.* Geneva: OCHA.

ICRC. (2012). *Framework for Sustainable Development at the ICRC.* Geneva: ICRC. Retrieved April 12, 2020, from http://www.icrc.org/en/doc/assets/files/2012/sustainable-development-icrc-framework-2012.pdf

ICRC. (2016). *Protracted conflict and humanitarian action: some recent ICRC experiences.* Geneva: International Committee of the Red Cross.

ICRC. (2016). *Reference of Manufacturing Standards for Relief Items Production.* Geneva: IFRC. Retrieved April 12, 2020, from https://www.icrc.org/en/document/reference-manufacturing-standards-relief-items-production

ICRC. (2017). *Biennial Report on Sustainable Development 2015-2016.* Geneva: IFRC. Retrieved April 12, 2020, from file:///C:/Users/user/Downloads/sustainable-development-icrc-2015-16.pdf

IFRC and BRE. (2014). *Quantifying Sustainability in the Aftermath of Natural Disasters: Guidance Manual 2014.* Watford: BRE Global.

IFRC and ICRC. (2008). *Guidelines for Assessment in Emergencies.* Geneva: IFRC.

IFRC. (1994). *The Code of Conduct for the International Red Cross and Red Crescent Movement and NonGovernmental Organisations (NGOs) in Disaster Relief.* Geneva: IFRC. Retrieved April 7, 2020, from https://www.ifrc.org/Global/Publications/disasters/code-of-conduct/code-english.pdf

IFRC. (1999). *Post-Emergency Rehabilitation Policy.* Geneva: IFRC. Retrieved April 7, 2020, from https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2017/07/postemergency-policy_EN.pdf

IFRC. (2003). *Food Security and Nutrition Policy.* Geneva: IFRC. Retrieved April 7, 2020, from https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2017/07/food-security-policy_EN.pdf

IFRC. (2011a). *Project/Programme Monitoring and Evaluation (M&E) Guide.* Planning and Evaluation Department. Geneva: IFRC Secretariat.

IFRC. (2011b). *IFRC Framework for Evaluation.* Planning and Evaluation Department. Geneva: IFRC Secretariat.

IFRC. (2013). *Principles and Rules for Red Cross and Red Crescent Humanitarian Assistance.* Geneva: IFRC. Retrieved April 7, 2020, from https://media.ifrc.org/ifrc/policies-key-commitments/

IFRC. (2015). *International Federation of Red Cross and Red Crescent Societies Plan and Budget 2016-2020.* Geneva: IFRC. Retrieved April 8, 2020, from https://www.ifrc.org/Global /Publications/general/IFRC_Plan_and%20Budget_2016_2020-EN.pdf

IFRC. (2018). *Green Response Snapshot.* Geneva: IFRC. Retrieved April 7, 2020, from https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2018/08/Green-Response-Snapshot-March-2018.pdf

IFRC. (2019a). *Development of Strategy 2030 – Adoption of the strategy.* Geneva: IFRC.

IFRC. (2019b). *IFRC Global Plan 2020.* Geneva: IFRC. Retrieved April 7, 2020, from https://media.ifrc.org/ifrc/document/ifrc-global-plan-2020/

IFRC. (2019c). *Green Response.* Geneva: IFRC. Retrieved April 9, 2020, from https://www.dgecho-partners-helpdesk.eu/_media/ec2019/presentation_gardestedt.pdf

IFRC. (2019d). *Environmental Field Advisor deployment in an Emergency Response Activity (Booklet).* Geneva: IFRC.

IFRC. (2019e). *Annual Report 2018.* Geneva: IFRC. Retrieved April 11, 2020, from https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2019/08/IFRC-2018-Annual-Report.pdf

IFRC. (2020). *Ambitions to address the climate crisis: International Red Cross Red Crescent Movement.* Geneva: IFRC. Retrieved April 12, 2020, from https://media.ifrc.org/ifrc/wp-content/uploads/sites/5/2020/02/Movement-Climate-Ambitions-2020-final.pdf

IFRC. (n.d.). *The Shelter Cluster- The shelter coordination team (SCT)* (website). Retrieved April 11, 2020, from https://www.humanitarianresponse.info/ sites/www.humanitarianresponse.info/files/documents/files/Shelter%20Coordination %20Team%20%28SCT%29.pdf

Jerkins, B. (2016). From mitigation to sustainability: The evolution of incorporating environmental factors into development decisions in Australasia. *International Journal of Sustainable Development and Planning, 11*(6), 920-929.

JEU. (2014). *Environment and humanitarian action: Increasing effectiveness, sustainability and accountability.* Geneva: Joint UNEP/OCHA Environment Unit. Retrieved May 19, 2020, from https://www.unocha.org/sites/unocha/files/EHA%20Study%20webfinal_1.pdf

JEU. (2014). *Environment and Humanitarian action: Increasing effectiveness, sustainability and accountability.* Geneva, Switzerland.

JICA. (2010). *Guidelines for environmental and social considerations.* Tokyo: Japan International Cooperation Agency. Retrieved March 29, 2020, from

https://www.jica.go.jp/english/our_work/social_environmental/guideline/pdf/guideline100326.pdf

Kelly, C. (2013). *Mainstreaming environment into humanitarian interventions - A synopsis of key organizations, literature and experience.* Retrieved March 22, 2020, from http://dx.doi.org/10.12774/eod_hd053.jul2013.kelly

Klarin, T. (2018). The concept of sustainable development: From its beginning to the contemporary issues. *Zagreb International Review of Economics & Business, 21*(1), 67-94. doi:10.2478/zireb-2018-0005

Kliest, T., & Singh, G. (2012). *Review of the World Food Programme's Humanitarian and Development Effectiveness 2006-2011.* OECD. Retrieved April 4, 2020, from https://www.oecd.org/dac/evaluation/dcdndep/50540181.pdf

Kliest, T., & Singh, G. (2012). *Review of the World Food Programme's Humanitarian and Development Effectiveness 2006-2011.* OECD. Retrieved April 4, 2020, from https://www.oecd.org/dac/evaluation/dcdndep/50540181.pdf

K'Oyooh, O. K. (2015). *Environmental impact assessment project report for proposed construction of water and sanitation structure in Bengale, Tana North sub county, Tana River county.* Retrieved May 19, 2020, from https://norad.no/en/toolspublications/publications/ngo-evaluations/2015/environmental-impact-assessment-project-report-for-proposed-construction-of-water-and-sanitation-structures-in-bangale/

Mainka, S. A., & McNeely, J. (2011). Ecosystem Considerations for Postdisaster Recovery: Lessons from China, Pakistan, and Elsewhere for Recovery Planning in Haiti. *Ecology and Society, 16*(1), 13. Retrieved May 19, 2020, from http://www.ecologyandsociety.org/vol16/iss1/art13/

Mayring, P. (2000). Qualitative content analysis. *Forum: Qualitative content analysis, 1*(2), Art. 20.

Neefjes, K. (2000). *Environments and Livelihoods: Strategies for sustainability.* London: Oxfam publication.

NESS. (2013). *Environmental Impact Assessment Study of Kabeli 'A' Hydroelectric Project.* Retrieved May 19, 2020, from http://documents.worldbank.org/curated/en/314741468291671202/pdf/E28360V70REV0P0Box379847B00PUBLIC0.pdf

Nunan, F., Campbell, A., & Foster, E. (2012). Environmental Mainstreaming: the organizational challenges of policy integration. *Public Administration and Development, 32*, 262-277. doi:10.1002/pad.1624

Oberhofer, P., Blanco, E., & Craig, A. J. (2013). Carbon Efficiency of Humanitarian Supply Chains: Evidence from French Red Cross operations. *ESD Working Paper Series.*

Massachusetts Institute of Technology. Retrieved May 19, 2020, from https://dspace.mit.edu/bitstream/handle/1721.1/102968/esd-wp-2013-10.pdf?sequence=1

OCHA. (2017). *New Way of Working.* United Nations Office for the Coordination of Humanitarian Affairs. Retrieved February 12, 2020, from https://www.unocha.org/sites/unocha/files/NWOW%20Booklet%20low%20res.002_0.pdf

Ochoa, K. B., Harrison, L., Lyon, N., & Nordentoft, M. (2012). *Implications and opportunities for Cash Transfer Programming in humanitarian response.* Retrieved March 23, 2020, from https://reliefweb.int/sites/reliefweb.int/files/resources/cashenvironment__implications_and_opportunities%20%281%29.pdf

OECD. (2014). *Mainstreaming Cross-cutting Issues: 7 Lessons from DAC Peer Reviews.* Paris: OECD Publishing. Retrieved May 8, 2020, from http://www.oecd.org/dac/peer-reviews/mainstreaming-cross-cutting-issues.htm

OECD. (2020). *DAC Recommendation on the Humanitarian-Development-Peace Nexus.* OECD. Retrieved March 20, 2020, from https://legalinstruments.oecd.org/public/doc/643/643.en.pdf

Oroda, A. S. (2015). *The environmental and social impact assessment and the environmental and social management plan (ESMP) report for the Gambia agriultural value chain development project (AVCDP).* African Development Bank Group.

Overseas Environmental Cooperation Center. (2000). *Environmental Impact Assessment for International Cooperation: Furthering the Understanding of Environment Impact Assessment Systems for Experts Engaged in International Cooperation Activities.* Japan: Environment Agency.

PAGE Secretariat. (2020). *A New Decade of Action: Accelerating a Fair and Green Economic Transformation.* Geneva: PAGE. Retrieved April 17, 2020, from https://www.un-page.org/files/public/page_brochure_final_mar_20_web.pdf

Palinkas, L., Horwitz, S., Green, C., Wishdom, J., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and policy in mental health, 42*(5), 533-544.

Patton, M. Q. (2015). *Qualitative research and evaluation methods: integrating theory and practice (Fourth Edition).* California : SAGE publications.

Pelling, M., High, C., Dearing, J., & Smith, D. (2008). Shadow spaces for social learning: a relational understanding of adaptive capacity to climate change within organisations. *Environment and Planning, 40*, 867-884. doi:10.1068/a39148

Perret, L. (2019). *Operationalizing the Humanitarian–Development–Peace Nexus: Lessons learned from Colombia, Mali, Nigeria, Somalia and Turkey.* Geneva: IOM. Retrieved Februaru 12, 2020, from https://publications.iom.int/fr/system/files/pdf/operationalizing_hdpn.pdf

Roberts, D., & O'Donoghue, S. (2013). Urban environmental challenges and climate change action in Durban, South Africa. *Environment and Urbanization, 25*(2), 299-319. doi:10.1177/0956247813500904

SIDA. (2002). *Guidelines for the review of environmental impact assessments.* Stockholm: Swedish International Development Cooperation Agency. Retrieved March 28, 2020, from https://www.sida.se/contentassets/e1a8301ff0b74e7da37f5a1e67d4ddb8/13060.pdf

Sitas, N., Prozesky, H. E., Esler, K., & Reyers, B. (2014). Exploring the Gap between Ecosystem Service Research and Management in Development Planning. *Sustainability, 6*, 3802-3824. doi:10.3390/su6063802

Sphere Association. (2018). *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response.* Geneva: Sphere Association. Retrieved March 29, 2020, from www.spherestandards.org/handbook

Sphere Association. (2018). *The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response.* Geneva: Sphere. Retrieved April 11, 2020, from https://www.spherestandards.org/handbook/

Srinivas, H., & Nakagawa, Y. (2008). Environmental implications for disaster preparedness: Lessons learned from the Indian Ocean tsunami. *Journal of Environmental Management, 89*(1), 4-13. Retrieved May 19, 2020, from https://doi.org/10.1016/j.jenvman.2007.01.054

UN Environment. (2019). *Greening the Blue Report 2019: The UN System's Environmental Footprints and Efforts to Reduce it* (website). UN Environment. Retrieved April 15, 2020, from http://greeningtheblue.org/sites/default/files/GreeningtheBlue2019.pdf

UN. (2012). *A Framework for Advancing Environmental and Social Sustainability in the United Nations System.* Geneva: Environment Management Group. Retrieved April 6, 2020, from https://sustainabledevelopment.un.org/content/documents/2738sustainabilityfinalweb-.pdf

UN. (2012). *Powering Agriculture: An Energy Grand Challenge for Development*. Retrieved April 23, 2020, from UNSDGs Partnership Platform: https://sustainabledevelopment.un.org/partnership/?p=949

UN. (2014). *Choiseul Integrated Climate Change Programme (CHICCHAP)* (website). Retrieved April 23, 2020, from UNSDGs Partnership Platform: https://sustainabledevelopment.un.org/partnership/?p=7540

UN. (2015). *Conservation Finance Product Development* (website). Retrieved April 23, 2020, from UNSDGs Partnership Platform https://sustainabledevelopment.un.org/partnership/?p=10929

UN. (2015). *Transforming our world: The 2030 agenda for sustainable development.* New York: UN.

UNDP and GEF. (2019). *The GEF Small Grants Programme Annual Monitoring Report 2018-2019.* New York: GEF. Retrieved April 17, 2020, from https://sgp.undp.org/innovation-library/item/1986-the-gef-small-grants-programme-results-report-2018---2019.html

UNDP and UNEP. (2016). *The Poverty-Environment Initiative in the Context of the Sustainable Development Goals: Relevance and Experience for National and Subnational Implementation.* Nairobi: UNDP-UNEP Poverty-Environment Facility. Retrieved April 17, 2020, from https://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/sustainable%20land%20management/Factsheet-PEI.pdf

UNDP, FAO and UNEP. (2015). *UN-REDD Programme Strategic Framework 2016-2020 Revised Draft.* UN-REDD programme. Retrieved April 17, 2020, from http://www.unredd.net/index.php?option=com_docman&view=document&alias=14096-un-redd-pb14-2015-strategic-framework&category_slug=session-3-strategic-and-policy-issues&Itemid=134

UNDP. (2008a). *Environmental Procurement: practice Guide Volume I.* Procurement Support Office. New York: UNDP. Retrieved April 16, 2020, from https://www.greeningtheblue.org/sites/default/files/UNDPEnvironmental%20procurement_0.pdf

UNDP. (2008b). *Mainstreaming Drylands Issues in National Development Frameworks: Generic Guidelines and Lessons Learnt.* Nairobi: Drylands Development Centre. Retrieved April 15, 2020, from https://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/sustainable%20land%20management/GUIDE%20english%20final.pdf

UNDP. (2009). *Handbook on Planning, Monitoring and Evaluating for Development Results.* New York: UNDP. Retrieved April 17, 2020, from http://www.undp.org/eo/handbook

UNDP. (2011). *Practitioner's Guide: Capacity Development for Environmental Sustainability.* Bureau for Development Policy. New York: UNDP. Retrieved April 15, 2020, from https://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/mainstreaming/cdes/UNDP%20Practitioner's%20GuideWEB.pdf

UNDP. (2012). *Environmental and social screening procedure for UNDP projects.* New York: United Nations Development Programme.

UNDP. (2012a). *Strategy for Working with the Private Sector.* New York: UNDP. Retrieved April 14, 2020, from http://www.undp.org/content/dam/undp/library/corporate/Partnerships/Private%20Sector/UNDP-Private-Sector-Strategy-final-draft-2012.pdf

UNDP. (2012b). *Mainstreaming Climate Change in National Development Processes and UN Country Programming: A guide to assist UN Country Teams in integrating climate change risks and opportunities.* Environment and Energy Group. New York: UNDP.

UNDP. (2013). *The UNDP Supplier Code of Conduct.* New York: UNDP. Retrieved April 16, 2020, from https://www.undp.org/content/dam/cambodia/docs/Operations/UNDP%20Supplier%20Code%20of%20Conduct_updated.pdf

UNDP. (2014a). *United Nations Development Programme- Social and Environmental Standards.* New York: UNDP. Retrieved April 14, 2020, from https://www.undp.org/content/undp/en/home/librarypage/operations1/undp-social-and-environmental-standards/

UNDP. (2014b). *Investigation Guidelines: Social and Environmental Compliance Unit.* Office of Audit and Investigations. New York: UNDP. Retrieved April 17, 2020, from http://www.undp.org/content/dam/undp/library/corporate/Social-and-Environmental-Policies-and-Procedures/SECU%20Final%20approved%20Investigation%20Guidelines%20and%20SOPs.pdf

UNDP. (2015). *UNDP Procurement Strategy 2015-2017.* New York: UNDP. Retrieved April 16, 2020, from http://www.undp.org/content/dam/sweden/Procurement%20Strategy%20Final%20July%201%202015.pdf

UNDP. (2016a). *Delivering Sustainable Energy on Changing Climate: Strategy Note on Sustainable Energy 2017-2021.* New York: UNDP. Retrieved April 14, 2020, from https://www.undp.org/content/dam/undp/library/Climate%20and%20Disaster%20Resilience/UNDP%20Energy%20Strategy%202017-2021.pdf

UNDP. (2016b). *Social and Environmental Screening Procedure.* New York: UNDP. Retrieved April 15, 2020, from https://www.undp.org/content/dam/undp/library/corporate/Social-and-Environmental-Policies-and-Procedures/UNDP-Social-Environmental-Screening-Procedure-1January2015.pdf

UNDP. (2016c). *Guidance Note UNDP Social and Environmental Standards: Social and Environmental Assessment and Management.* New York: UNDP. Retrieved April 15, 2020, from https://info.undp.org/sites/bpps/SES_Toolkit/SES%20Document%20Library/Uploaded%20October%202016/Final%20UNDP%20SES%20Assessment%20and%20Management%20GN%20-%20Dec2016.pdf

UNDP. (2017a). *UNDP Strategic Plan 2018-2021.* New York: UNDP. Retrieved April 14, 2020, from https://undocs.org/DP/2017/38

UNDP. (2018). *Procurement Methods.* Procurement Support Office. New York: UNDP. Retrieved April 16, 2020, from https://popp.undp.org/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Procurement%20Methods_Procurement%20Methods.docx?web=1

UNDP. (2019). *UNDP Evaluation Guidelines.* Independent Evaluation Office. New York: UNDP. Retrieved April 17, 2020, from http://web.undp.org/evaluation/guideline/documents/PDF/UNDP_Evaluation_Guidelines.pdf

UNDP. (2020). *Environmentally Sustainable Operations*. Retrieved April 15, 2020, from UNDP Accountability: https://www.undp.org/content/undp/en/home/accountability/social-and-environmental-responsibility/sustainable-operations.html

UNEP. (2008). *Destitution, distortion, and deforestation: The impact of the conflict on the timber and the woodfuel trade in Darfur.* Geneva: UNEP. Retrieved May 2019, 2020, from https://postconflict.unep.ch/publications/darfur_timber.pdf

UNHCR. (2005). *UNHCR Environmental Guidelines.* Geneva: UNHCR.

UNSDG. (2019). *United Nations Sustainable Development Cooperation Framework (UNSDCF).* New York: UNSDG. Retrieved April 15, 2020, from https://unsdg.un.org/sites/default/files/2019-10/UN-Cooperation-Framework-Internal-Guidance-Final-June-2019_1.pdf

USAID. (2013a). *ADS Chapter 204 Environmental Procedures.* Washington: USAID. Retrieved April 19, 2020, from https://www.usaid.gov/sites/default/files/documents/1865/204.pdf

USAID. (2013b). *The Environmental Mitigation & Monitoring Plan (EMMP).* USAID. Retrieved April 22, 2020

USAID. (2013c). *ADS Chapter 528 Energy Management and Planning Program for USAID Buildings.* Washington: USAID. Retrieved April 22, 2020, from https://www.usaid.gov/sites/default/files/documents/1868/528.pdf

USAID. (2014). *ADS Chapter 533 Purchasing for USAID's Overseas Activities.* Washington: USAID. Retrieved April 23, 2020, from https://www.usaid.gov/sites/default/files/documents/1868/533.pdf

USAID. (2017a). *Green Infrastructure Resource Guide.* Washington: USAID.

USAID. (2017b). *USAID Strategic Sustainability Performance Plan Summary.* Washington: USAID. Retrieved April 21, 2020, from https://www.eenews.net/assets/2018/07/24/document_cw_01.pdf

USAID. (2018). *Regulation 216: Processes and Documentation.* Global Environment Management Support. Washington: USAID. Retrieved April 21, 2020, from https://www.usaid.gov/sites/default/files/documents/1860/Session3Presentation.pdf

USAID. (2019a). *USAID Policy Framework: Ending the Need for Foreign Assistance.* Washington DC: U.S. Agency for International Development. Retrieved April 19, 2020, from https://www.usaid.gov/sites/default/files/documents/1870/WEB_PF_Full_Report_FINAL_10Apr2019.pdf

USAID. (2019b). *Environmental and Natural Resource Management Framework.* Washington: USAID. Retrieved April 20, 2020, from https://www.usaid.gov/sites/default/files/documents/1865/USAID_ENRM_FRAMEWORK.pdf

USAID. (2019c). *Process for Developing and Approving a Country Development Cooperation Strategy (CDCS) - A Mandatory Reference for ADS Chapter 201.* Washington: USAID. Retrieved April 21, 2020, from https://www.usaid.gov/sites/default/files/documents/1870/201mag.pdf

USAID. (2019d). *ADS Chapter 300 Agency Acquisition and Assistance (A&A) Planning.* Washington: USAID. Retrieved April 23, 2020, from https://www.usaid.gov/sites/default/files/documents/1868/300.pdf

USAID. (2020a). *ADS Chapter 201- Program Cycle Operational Policy.* Washington: USAID. Retrieved April 20, 2020, from https://www.usaid.gov/sites/default/files/documents/1870/201.pdf

USAID. (2020b). *Sector Environment Guidelines and Resources.* Retrieved April 20, 2020, from USAID: https://www.usaid.gov/environmental-procedures/sectoral-environmental-social-best-practices/sector-environmental-guidelines-resources

USAID. (2020c). *ADS Chapter 302: USAID Direct Contracting.* Washington: USAID. Retrieved April 22, 2020, from https://www.usaid.gov/sites/default/files/documents/1868/302.pdf

USAID. (n.d.). *USAID Public-Private Partnerships Database* (website). Retrieved April 23, 2020, from https://partnerships.usaid.gov/home

Wamsler, C. (2014). *Critical Introductions to Urbanism and the City: Cities, Disaster Risk and Adaptation.* London: Routledge.

Wamsler, C., Luederitz, C., & Brink, E. (2014). Local levers for change: Mainstreaming ecosystem-based adaptation into municipal planning to foster sustainability transitions. *Global Environmental Change, 29,* 189-201.

Weimer, D., & Vining, A. (2017). *Policy analysis: concepts and practice.* Oxford: Taylor and Francis.

Weinthal, E., Troell, J. J., & Nakayama, M. (2014). *Water and post-conflict peacebuilding.* London: Routledge. Retrieved May 19, 2020, from https://doi.org/10.4324/9781849775809

WFP. (2012a). *WFP Policy on Disaster Risk Reduction and Management: Building Food Security and Resilience.* Policy, Planning, and Strategy Division. Rome: WFP.

WFP. (2012b). *WFP Humanitarian Protection Policy.* Policy, Planning, and Strategy Division. Rome: WFP.

WFP. (2012c). *Emergency Preparedness and Response Package.* Emergency Preparedness and Response branch. Rome: WFP. Retrieved April 5, 2020, from https://documents.wfp.org/stellent/groups/public/documents/resources/wfp251892.pdf

WFP. (2015). *Policy on Building Resilience for Food Security and Nutrition.* Policy and Programme Division. Rome: WFP.

WFP. (2016a). *WFP Policy on Country Strategic Plans.* Rome: WFP.

WFP. (2016b). *Quick Guide to Greening WFP*. Environmental Sustainability Unit. Rome: WFP. Retrieved April 5, 2020, from https://docs.wfp.org/api/documents /d0101eaee3964621aa4fb33c54196f86/download/

WFP. (2016c). *Environmental Management at WFP (Booklet)*. Environmental Sustainability Unit. Rome: WFP. Retrieved April 6, 2020, from https://docs.wfp.org/api/documents /306174a7dd814562be089f5abead98d5/download/

WFP. (2017a). *Environmental Policy.* Rome: WFP.

WFP. (2017b). *WFP's Climate Change Policy.* Policy and Programme division. Rome: WFP.

WFP. (2017c). *WFP Strategic Plan 2017-2021.* Rome: WFP.

WFP. (2017d). *Ecuador Country Strategic Plan (2017–2021).* Rome: WFP.

WFP. (2017e). *Emergency preparedness policy: Strengthening WFP emergency preparedness for effective response.* Rome: WFP. Retrieved April 5, 2020, from https://docs.wfp.org/api /documents/WFP-0000050509/download/

WFP. (2018a). *Nepal country strategic plan (2019–2023).* Rome: WFP.

WFP. (2018b). *Kenya country strategic plan (2018–2023).* Rome: WFP.

WFP. (2018c). *WFP Environmental Policy Update to the Executive Board.* Policy and Program Division, Rome. Retrieved April 5, 2020, from https://docs.wfp.org/api/documents /3cbbd02f2fb44f9da46bdc74b3c91a0b/download/

WFP. (2018d). *Revised Corporate Results Framework (2017–2021).* Rome: WFP. Retrieved April 5, 2020, from https://docs.wfp.org/api/documents/WFP-0000099356/download/

WFP. (2019a). *Annual performance report for 2018.* Rome: WFP. Retrieved April 5, 2020, from https://www.wfp.org/publications/annual-performance-report-2018

WFP. (2019b). *Nepal Annual Country Report 2018.* Nepal: WFP. Retrieved April 4, 2020, from https://docs.wfp.org/api/documents/WFP-0000104287/download/

WFP. (2019c). *Kenya Annual Country Report 2018.* Kenya: WFP. Retrieved April 4, 2020, from https://docs.wfp.org/api/documents/WFP-0000104194/download/

WFP. (2019d). *Ecuador Annual Country Report 2018.* Ecuador: WFP. Retrieved April 4, 2020, from https://it.wfp.org/operations/annual-country report?operation_id=EC01&year=2018#/12488

WFP. (2019e). *Food Procurement Factsheet.* Rome: WFP. Retrieved April 6, 2020, from https://docs.wfp.org/api/documents/WFP0000110514/download/?_ga=2.239627716.656829510.1 585743044-1228897524.1570646091

Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods (sixth edition).* California: SAGE publications.

Annex 1: Examples of major documents consulted

WFP	IFRC
WFP Environmental Policy WFP Policy on Disaster Risk Reduction and Management WFP Humanitarian Protection Policy WFP Policy on Building Resilience for Food Security and Nutrition WFP Policy on Country Strategic Plans WFP's Climate Change Policy WFP Emergency preparedness policy Revised Corporate Results Framework (2017–2021) Annual performance report for 2018 Food Procurement Factsheet Quick Guide to Greening WFP Environmental Management at WFP (Booklet)	The Code of Conduct for the International Red Cross and Red Crescent Movement and NonGovernmental Organisations (NGOs) in Disaster Relief Post-Emergency Rehabilitation Policy Food Security and Nutrition Policy International Federation of Red Cross and Red Crescent Societies Plan and Budget 2016-2020 Development of Strategy 2030 – Adoption of the strategy IFRC Global Plan 2020 Project/Programme Monitoring and Evaluation (M&E) Guide IFRC Framework for Evaluation Guidelines for Assessment in Emergencies. Green Response and Recovery: Training Toolkit for Humanitarian Aid. IFRC Annual Report 2018
UNDP	**USAID**
United Nations Development Programme-Social and Environmental Standards United Nations Development Assistance Framework (2018-2022) United Nations Sustainable Development Cooperation Framework (UNSDCF) UNDP Strategic Plan 2018-2021 UN-REDD Programme Startegic Framework 2016-2020 Revised Draft Social and Environmental Screening Procedure Guidance Note UNDP Social and Environmental Standards Mainstreaming Climate Change in National Development Processes and UN Country Programming Practitioner's Guide: Capacity Development for Environmental Sustainability Mainstreaming Drylands Issues in National Development Frameworks Handbook on Planning, Monitoring and Evaluating for Development Result Strategy for Working with the Private Sector The UNDP Supplier Code of Conduct UNDP Procurement Strategy 2015-2017 UNDP Evaluation Guidelines	ADS Chapter 201- Program Cycle Operational Policy ADS Chapter 204 Environmental Procedures. ADS Chapter 300 Agency Aquisition and Assistance (A&A) Planning ADS Chapter 302: USAID Direct Contracting ADS Chapter 528 Energy Management and Planning Program for USAID Buildings. ADS Chapter 533 Purchasing for USAID's Overseas Activities The Environmental Mitigation & Monitoring Plan (EMMP) Green Infrastructure Resource Guide USAID Strategic Sustainability Perormance Plan Regulation 216: Processes and Documentation USAID Policy Framework: Ending the Need for Foreign Assistance Environmental and Natural Resource Management Framework Sector Environment Guidelines and Resources USAID Public Private Partnerships Database

Annex 2: List of country strategic planning documents analyzed for this study

WFP – Country Strategic Plans (CSP)	IFRC – Country/Cluster Office Plans (COPs)
1. Algeria Interim CSP (2019-2022)	1. Central African Republic COP 2020
2. Angola Interim CSP (2020-2022)	2. Central Africa COP 2020
3. Armenia CSP (2019-2024)	3. Democratic Republic of Congo COP 2020
4. Benin CSP (2019-2023)	4. Indian Ocean Islands and Djibouti COP 2020
5. Bhutan CSP (2019-2023)	5. Niger COP 2020
6. Burkina Faso CSP (2019-2023)	6. Sierra Leone COP 2020
7. Cambodia CSP (2019-2023)	7. Somalia COP 2020
8. Caribbean interim multi-country CSP (2020-2021)	8. South Sudan COP 2020
9. Chad CSP (2019-2023)	9. Southern Africa COP 2020
10. Congo CSP (2019-2023)	10. Sudan COP 2020
11. Cote d'Ivoire CSP (2019-2023)	11. Bolivia, Ecuador and Peru COP 2020
12. Cuba Interim CSP (2020)	12. Central America COP 2020
13. Djibouti CSP (2020-2024)	13. Colombia COP 2020
14. Dominican Republic CSP (2019-2023)	14. English and Dutch Speaking Caribbean COP 2020
15. DRC Korea Interim (2019-2021)	15. Haiti and Dominican Republic COP 2020
16. Eswatini CSP (2020-2024)	16. Southern Cone COP 2020
17. Ethiopia Interim (2019-2020)	17. Venezuela COP 2020
18. Gambia CSP (2019-2021)	18. Afghanistan COP 2020
19. Ghana CSP (2019-2023)	19. Bangkok COP 2020
20. Guinea interim CSP (2019-2022)	20. Bangladesh COP 2020
21. Guinea-Bissau CSP (2019-2024)	21. Beijing COP 2020
22. Haiti CSP (2019-2023)	22. India COP 2020
23. India CSP (2019-2023)	23. Indonesia COP 2020
24. Iraq CSP (2020-2024)	24. Malaysia, Singapore and Brunei COP 2020
25. Jordon CSP (2020-2022)	25. Maldives and Bhutan COP 2020
26. Lesotho CSP (2019-2024)	26. Magnolia COP 2020
27. Liberia CSP (2019-2023)	27. Myanmar COP 2020
28. Libya short term CSP (2019)	28. Nepal COP 2020
29. Madagascar CSP (2019-2024)	29. Pacific COP 2020
30. Malawi CSP (2019-2023)	30. Philippines COP 2020
31. Mali CSP (2020-2024)	31. Papua New Guinea COP 2020
32. Mauritania CSP (2019-2022)	32. Sri Lanka COP 2020
33. Morocco CSP (2019-2021)	33. Timor Leste COP 2020
34. Nepal CSP (2019-2023)	34. Armenia COP 2020
35. Nicaragua CSP (2019-2023)	35. Azerbaijan COP 2020
36. Niger CSP (2020-2024)	36. Belarus COP 2020
37. Nigeria short term interim CSP (2019)	37. Central Asia COP 2020
38. Pacific interim multi-country CSP (2019-2022)	38. Central Eastern Europe COP 2020
39. Rwanda CSP (2019-2023)	39. Georgia COP 2020
40. Sao Tome and Principe CSP (2019-2024)	40. Greece COP 2020
41. Senegal CSP (2019-2023)	41. Moldova COP 2020
42. Sierra Leone CSP (2020-2024)	42. Russia COP 2020
43. Somalia interim CSP (2019-2023)	43. Ukraine COP 2020

44. Sudan CSP (2019-2023) 45. Syrian Republic Interim CSP (2019-2020) 46. Tajikistan CSP (2019-2024) 47. Turkey Interim CSP (2020-2021) 48. Yemen Interim CSP (2019-2020) 49. Zambia CSP (2020-2024)	44. Iraq COP 2020 45. Jordan COP 2020 46. Libya COP 2020 47. North Africa COP 2020 48. Syria COP 2020 49. Yemen COP 2020
UNDP – United Nations Development Assistance Frameworks (UNDAF)	**USAID- Country Development Cooperation Strategies (CDCS)**
1. Benin UNDAF (2019-2023) 2. Bhutan UNDAF (2019-2023) 3. Burundi UNDAF (2019-2023) 4. Cambodia UNDAF (2019-2023) 5. Ecuador UNDAF (2019-2023) 6. Equatorial Guinea UNDAF (2019-2023) 7. Iraq UNDAF (2020-2024) 8. Lesotho UNDAF (2019-2023) 9. Libya UN Strategic Framework (2019-2020) 10. Malawi UNDAF (2019-2023) 11. Mauritius UNDAF (2019-2023) 12. Namibia UN Partnership Framework (2019-2023) 13. Niger UNDAF (2019-2021) 14. Philippines UNDAF (2019-2023) 15. Senegal UNDAF (2019-2023) 16. South Sudan UNDAF (2019-2021)	1. Afghanistan CDCS (2019-2023) 2. Ethiopia CDCS (2019-2024) 3. Ghana CDS (2019- 2024) 4. Liberia CDCS (2019- 2024) 5. Philippines CDCS (2019- 2024) 6. South Africa CDCS (2013-2019) 7. Ukraine CDCS (2019-2024) 8. Zambia CDCS (2019-2024)

Annex 3: Environment mainstreaming strategies within WFP CSPs

Environment mainstreaming activities identified in WFP CSPs

Climate based adaptation and resilience building
R4 Rural Resilience Initiative*
Crop Insurance Access to micro-credit Food storage and processing Village cereal banks
Food for Assets (FFA)*
Soil and water management Afforestation Rehabilitation of agriculture fields Stabilization of dunes Watershed management
Food for training (FFT)*
Trainings on sustainable agriculture practices
Smallholder farmer support
Climate risk financing Crop diversification Analytical and technical support Access to real time climate data Environment friendly production inputs Climate resilient seeds

Disaster risk reduction and emergency preparedness
Early warning systems Climate risk monitoring Climate contingency planning Seasonal livelihood planning

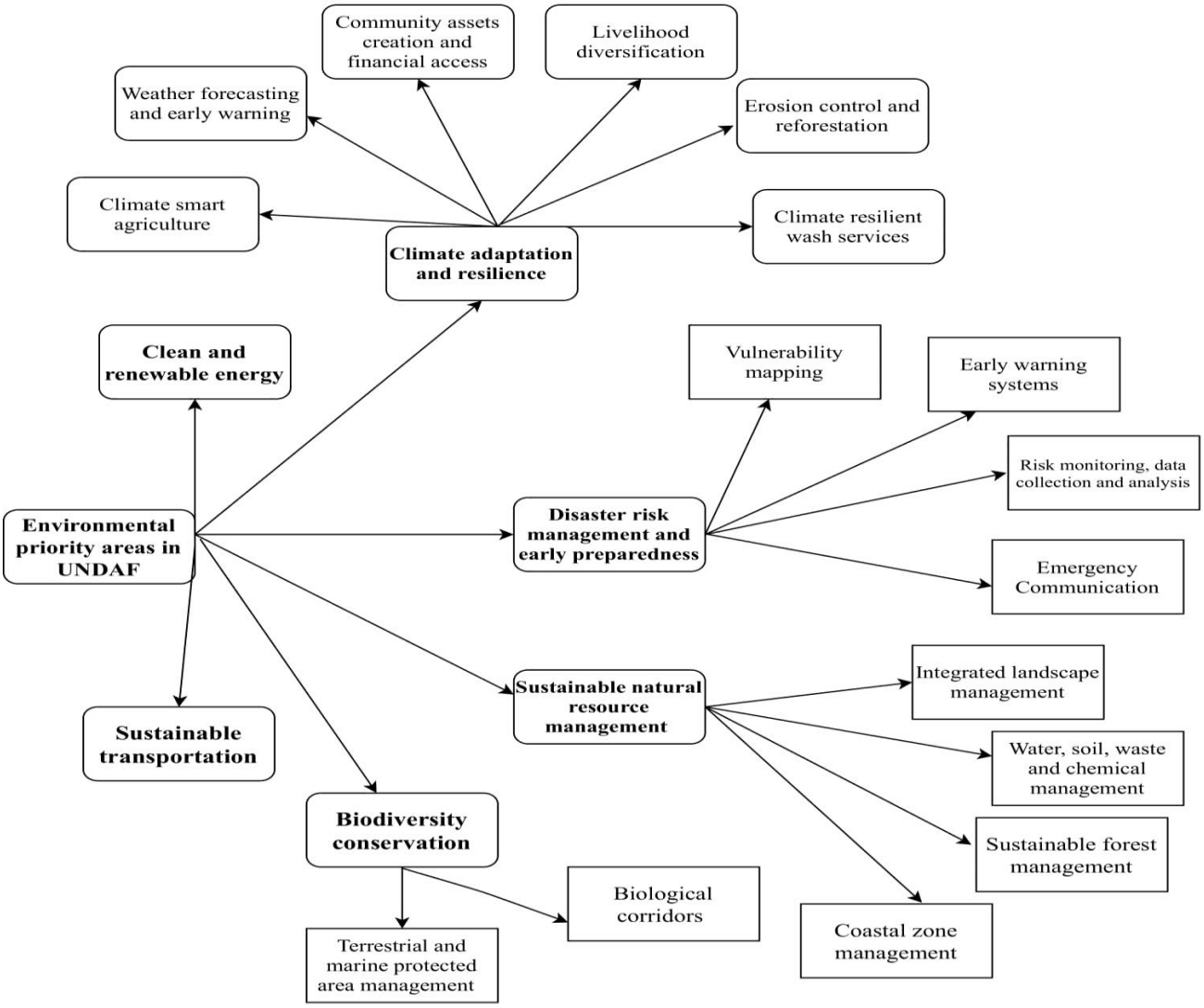
Environment-friendly school meal programme
Local food procurement Fuel-efficient cooking stoves

Environment sensitive food assistance
Bigger packaging Pooled transportation Reduced packaging Recyclable packaging

Strengthen government capacity to climate shock response
Climate-smart safety nets Environment policy support Meteorological and hydrological equipment Climate data collection and processing Disaster risk monitoring

*These are flagship programs of WFP

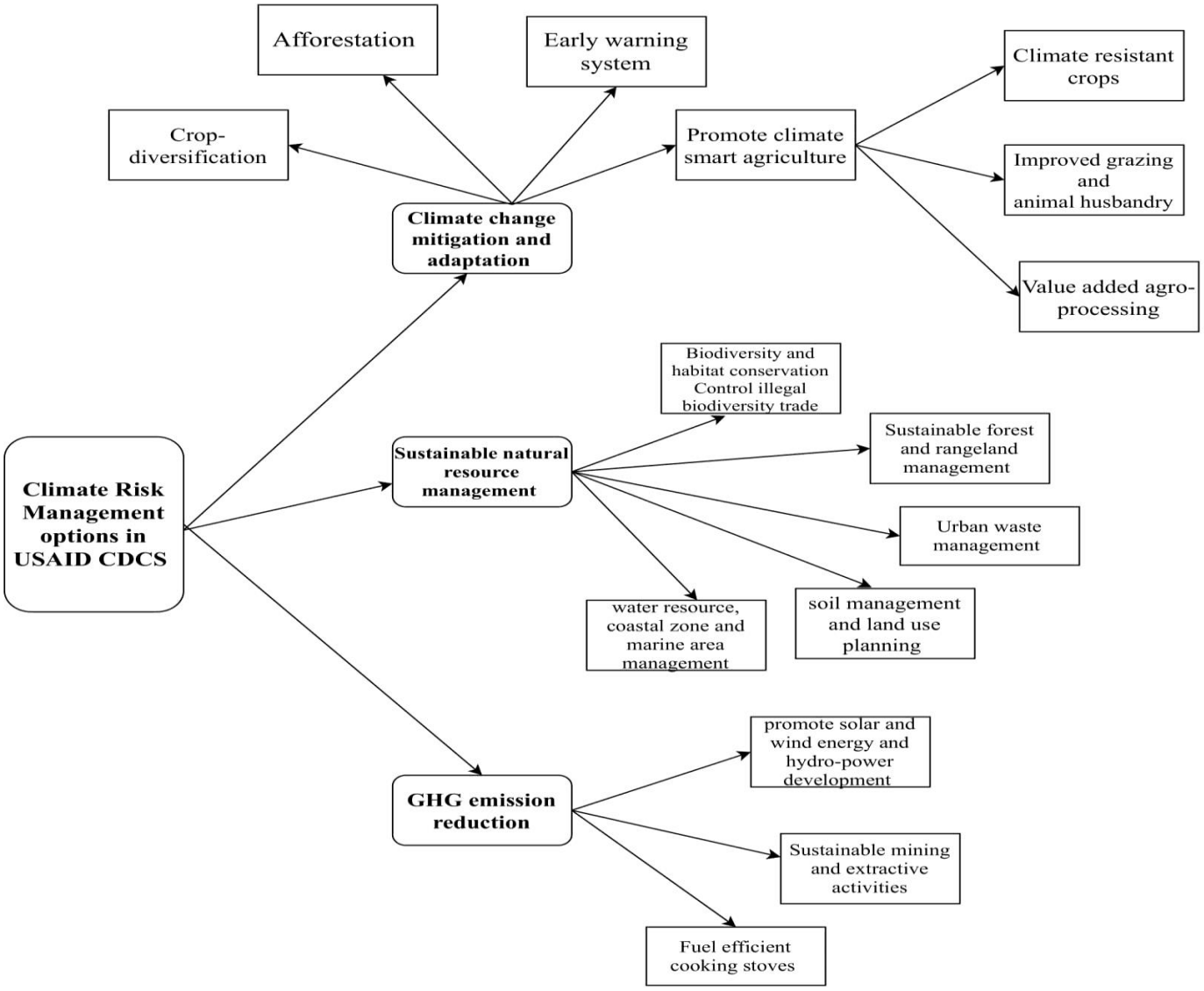
Annex 4: Environmental priority areas and mainstreaming strategies in UNDAF



Mainstreaming strategies in UNDAFs

Strengthen country policy frameworks
Environment and climate mainstreamed budget support
Enhance participatory CBNRM
Promote private-public investment in green technologies
Social and behavioral change communication
Strengthen environmental governance
Mainstream poverty-environment initiative
Support institutional strengthening
Promote indigenous knowledge
Technical support

Annex 5: Climate risk management options and strategies in USAID CDCSs



Mainstreaming strategies in CDCSs

Advocacy and policy support
Training and outreach
Research and development support
South-South cooperation
Technical assistance and institutional capacity building
Guidance for country strategy development
Support climate data monitoring and analysis
Private sector collaboration in green technologies