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SeongHoon Yoo
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특별기고

KOICA 인권기반 개발협력 프로그램 시행방안 연구*

성하은**
김혜정***

요 약

본 논문은 국제개발협력 당면 과제로서 인권기반접근(HRBA)의 당위성과 필요성을 검토하고, KOICA 사업의 효과성 및 지속 가능성을 증대하는 방안을 제시하고자 한다. 이를 위해 KOICA 인권경영 및 인권기반 개발협력 관련 정책과 이행현황을 살펴보고, 인권 관점에서 개발 성과의 한계점 및 개선점이 무엇인지 분석하였다. 동시에 인권기반 개발협력 관련 UN기구 및 주요 공여국의 정책과 이행 동향에 대한 최신 정보와 분석을 제공하여, 시행방안에 시사점과 정책적 함의를 제공하고자 한다. 결론적으로 KOICA 인권기반 개발협력 구현을 위한 첫 단계로 프로그램 기획의 방법을 보여주는 시행방안(framework)을 제시한다. 이는 인권에 기반한 △문제 및 원인 분석, △행위자 역할 및 역량 분석, △PANEL 원칙의 적용을 기준으로 작성되었으며, 특히 교육 및 보건분야 중기전략에 인권기

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** 굿네이버스 제네바 사무소 대표 / gni.geneva@gmail.com
*** 독립 연구자 / agathalatte@gmail.com

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요 약

반접근을 재디자인하는 실례를 제공하여 실무자의 이해를 높이 고자 하였다. KOICA의 기존 사업과 전략을 보면 상당 부분 인권요소가 반영되어 있으나, 인권기반접근과 기존 사업 간의 가장 큰 차이점이자 필요성은 1) 사업 행위자를 권리보유자 및 의무부담자로 나누어 권한과 의무를 명확히 하는 점, 2) 사업의 초점을 권리보유자 인권 및 역량 증진에 두는 점, 3) 사업 전반에 걸쳐 권리보유자를 위한 참여, 책무성, 비차별, 권한강화, 국제인권기준과 연계하는 것에 있다.

주제어: 인권기반접근, 인권기반 개발협력, 인권 주류화, 인권경영

Ⅰ. 서론

인권의 증진은 전 세계 빈곤의 근본 원인을 해결하고 지속가능한 발전을 위하여 반드시 달성해야 할 개발의 주요 목표가 되어가고 있다. 지속가능발전목표(Sustainable Development Goals, SDGs)'의 핵심명제인 'Leave No One Behind'는 단 한 사람도 소외되지 않는 것을 목표로 두고 있는데, 이는 인권이 빈곤과 불평등한 구조를 해체하고, 평등하고 참여적이며 포용적인 사회를 지향하기 때문이다. 여기서 인권기반접근(Human Rights-Based Approach, HRBA)은 빈곤과 개발을 이해하는 개념적 틀을 제공하며, 개발정책과 프로그램의 과정과 결과를 안내해주는 길잡이이자 도구의 역할을 동시에 수행한다. 인권기반접근은 UN개발계획(United Nations Development Programme, UNDP)과 UN아동기금(United Nations Children's Fund, UNICEF) 등 주요 UN 기관뿐 아니라, 영국, 미국, 스웨덴, 독일 등 주요 공여국의 개발협력 전략으로 공고히 자리 잡고 있다. 이는 2018년 공공기관의 인권 책무성 강화를 위해 인권경영을 선언한 한국국제협력단(이하 KOICA)의 정책과도 일치한다. 본 원고에서는 국제개발협력 당면 과제로서 왜 인권기반접근을 적용해야 하는지에 대한 필요성과 이를 통해 KOICA 사업의 효과성 및 지속 가능성을 증대하는 방안을 제시하고자 한다.

인권기반접근(HRBA)은 국제인권기준과 원칙을 개발 계획, 정책 결정, 시행과 평가 전 과정에 통합하는 개념적 틀이다. 인권의 증진과 보호를 개발협력의 주요 목적으로 지향함으로써 1) 개발 사업의 지속가능성을 증대하고, 2) 취약 계층의 역량을 강화하며, 3) 개발에 대한 의무를 지닌 행위자들의 책무성을 명확히 하고, 4) 구조적인 빈곤의 원인을 해결하고자 한다. 궁극적으로 인권기반접근의 적용은 KOICA 개발사업의 효과성과 지속성을 증대하며, 개발 성과에 대한 주인의식과 책임감을 고양하고, 사업 목표의 범위를 넘어 인권의 포괄적 증진에 기여할 수 있다. 좀 더 이해하기 쉽게 인권기반접근을 요소별로 분해하자면 첫째, 인권기반접근에서 사용하는 인권(human rights)은 권리가 실현될 수 있도록 가능케 하는 원칙과 방법을 의미한다(한국인권재단, 2015). 이때 인권은 '아동의 인권'처럼 '누구의' 인권 또는 '주거권'처럼 '무엇을 하기 위한 인권'을 의미하는 것과 다르다. 둘째, 기반(based)이란 특정한 기준과 원칙에 따른다는 것을 의미하며, 접근(approach)은 인권기반 접근이 법이나 규칙이 아닌 실행을 위한 정책 프레임이자 도구라는 것을 뜻한다. 따라서 인권기반접근은 상황과 맥락에 따라 융통성 있게 적용되어야 한다. 한가지 더하자면, 여기서 권리보유자(rights-holders)란 인권의 보장 및 증진을 누릴 정당한 권리를 가진 개인 또는 집단을 의미하며, 의무부담자(duty-bearers)는 해당 인권을 보장할 의무가 있거나 침해할 소지가 있으며, 이에 대한 책임을 지는 개인 또는 집단을 의미한다.

개발 프로그램을 기획 및 운영할 때 인권기반접근을 적용하는 원칙으로 PANEL원칙이 가장 폭넓게 사용되고 있다. 인권기반접근을 조직의 핵심가치로 선정한다고 해도 조직 구성원이 곧

바로 운영 및 사업에 인권적 가치를 반영하기는 어렵다. 따라서 PANEL원칙인 △참여(participation), △책무성(accountability), △비차별(non-discrimination), △권한강화(empowerment), △인권기준과의 연계(linkages to human rights standards)에 따라 사업을 기획하고 운영한다면 개발 본연의 목적에 조금 더 가까워질 수 있다. 현재는 기존 PANEL원칙에 기관별로 중요하다고 생각하는 가치를 추가해 다양하게 적용하고 있다. 스웨덴 국제개발협력청(Swedish International Development Cooperation Agency, SIDA)의 경우, 개발협력에 인권기반접근을 적용하기 위해 PLANET를 고려해야 함을 강조하고 있는데, 이는 PANEL원칙에서 투명성(transparency)을 추가한 것이다. UN식량농업기구(Food and Agriculture Organization of the United Nations, FAO)는 의무부담자에게 적절한 식량에 대한 권리를 보장하기 위해 기존 PANEL원칙을 보완하여 자체적으로 PANTHER 프레임워크를 만들어 사용하고 있다. 여기에는 투명성(transparency), 인간 존엄(human dignity), 법의 지배(rule of law)가 추가되었다(FAO, 2021).

특히 인권기준과의 연계(linkages to human rights standards)와 관련해서, 9대 국제인권조약(International Human Rights Treaties)과 국별 정례인권검토(Universal Periodic Review, UPR), 특별절차(Special Procedures, SP)를 참고하면 된다. 국제인권조약은 인권에 대한 포괄적인 내용을 담고 있는 시민적・정치적 권리규약 및 경제적・사회적・문화적 권리규약을 기본으로, 특정 주제 또는 집단에 초점을 맞춘 인종차별철폐협약, 여성차별철폐협약, 고문방지협약, 아동권리협약이 있으며, 이밖에 사회적 취약계층의 권리보호를 위한 이주노동자권리협약, 강제실종협약, 장애인권리협약으로 구성되어 있다.

인권기반접근은 인권의 특성 상 불가분성(indivisibility)과 보편성(universality)을 특징으로 하며, 인권 증진의 책임을 갖는 의무부담자(duty-bearer)인 수원국 정부와 유관기관의 역할을 강조하는 등 기존 수요중심(needs-based) 개발협력 접근법과 상이한 점이 많다. 그러나 KOICA는 이미 개발협력사업 내 인권적 요소를 다층적으로 반영하고 있으며, 최근 수립된 문서들을 보면 인권기반접근을 개발협력사업의 주요 방법론으로 정착하기에 이상적 환경을 갖추고 있다고 보여진다.

한편, 인권기반접근은 포스트 코로나 시대에 사회・경제・인권적 영향을 파악하고, 취약계층을 지원하고 보호하는데 가장 적정한 방법론이기도 하다. 프리덤 하우스에 따르면 2020년 COVID-19(코로나)확산으로 인해 많은 국가들이 경제 침체와 빈곤 확대를 경험했으며, 질병통제 규제조치를 빌미로 민주주의 퇴보를 경험하였다고 한다(Freedom House, 2021). 국제사회 역시 소수자 차별, 난민캠프, 공급망 붕괴 등 코로나가 인권에 끼치는 다차원적이고 부정적인 영향을 경험하였다. 따라서 향후 개발협력분야에서 취약집단의 사회적 보호와 인권문제 해결이 주요한 고려사항이 될 것으로 예상된다. KOICA도 포스트 코로나 시대 인권회복 중심의 국제협력을 위해, 개발협력 사업에서 인권기반접근의 운영을 강화해 나가야 할 것이다.

Ⅱ. KOICA 인권기반 개발협력 분야 이행현황 분석

1. KOICA 인권경영과 인권기반 개발협력 전략의 발전

KOICA는 2018년 국가인권위원회의 권고를 계기로 '누구도 소외받지 않는 사람 중심의 평화와 번영을 위한 상생의 개발협력'을 위해 인권경영을 도입했다. 이후 인권기반 윤리경영 실현을 중장기 경영목표로 설정하고 〈KOICA 인권경영 이행계획, 2018~2020〉을 통해 인권교육, 고충처리제도 정비, 인권영향평가 등 시스템 구축과 인권기반접근의 정착을 위한 제도를 정비한다. KOICA의 2기 인권경영은 윤리·준법 그리고 혁신·소통경영 구현을 중장기 목표로, 3대 인권정책인 △인권경영 이행계획, △인권기반 개발협력 이행계획, △인권분야 중기전략을 운영 및 관리를 담당한다. 현재까지 KOICA의 인권 관련 정책을 정리하면 〈표 1〉과 같다.

이후 〈KOICA 인권기반 개발협력 이행계획, 2020~2023〉을 수립하고, 사업에서 인권 주류화를 위한 단계별 정책을 강화하고 있다. 동 문서는 사업의 기획, 실행 및 모니터링 과정에서 인권을 주류화하고, 인권위험 예방·관리·평가·구제 체계를 확립하는 것으로 5대 실행전략과 15개 세부과제로 구성되어 있다. 중장기 경영목표 중 하나인 인권기반 윤리경영 실현, 국제규범 준수, 국가인권 정책과제 이행을 위해 추진되었다. 5대 실행전략이란, 1) 협력대상국 인권상황 분석에 기초한 사업 발굴·기획, 2) 국제개발협력 사업에서 발생가능한 인권위험 관리체계 구축, 3) 인권기반접근(HRBA)에 따른 성과 관리 및 평가, 4) 사업에서의 인권위험에 대한 구제책임 강화, 5) 취약계층(여성, 아동, 장애인, 청소년) 대상 인권적 접근 강화를 말한다(한국국제협력단, 2020).

〈표 1〉 KOICA 인권 관련 정책

국내 인권정책	국제개발협력기본법(제3조 1항)
	국가인권정책기본계획(NAP)(2018~2022)
	제3차 국제개발협력 기본계획(2021~2025)
KOICA 인권정책	인권경영 이행계획 1기(2018~2020)
	인권경영 이행계획 2기(2021~2023)
	인권기반 개발협력 이행계획(2020~2023)
	인권분야 중기전략(2021~2025)

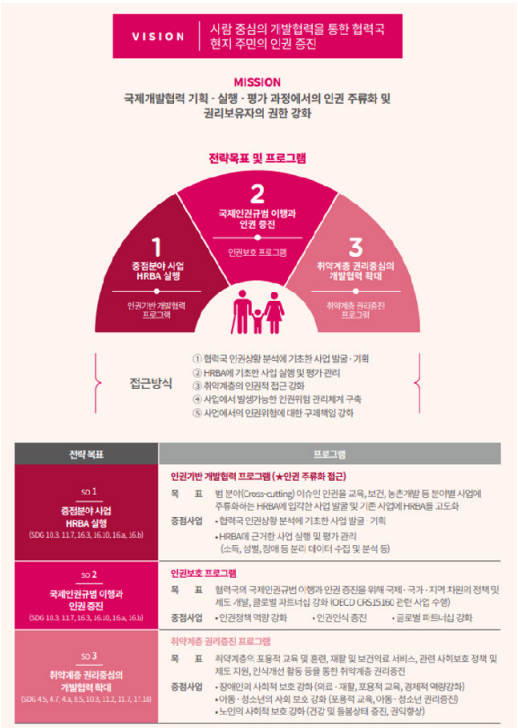
출처: KOICA 홈페이지 '윤리경영' 바탕으로 저자 작성.

2. KOICA 인권 분야 중기 전략의 의의

KOICA는 최근 이행계획의 15대 정책 과제와 인권기반접근 사업 발굴을 강화하기 위한 목적으로 〈KOICA 인권 분야 중기 전략, 2021~2025〉을 수립하였다. 동 전략은 협력국 주민의 인권 증진을 추구하며, 개발협력사업의 기획·실행 및 평가 과정에서의 인권 주류화 및 권리보유자의 권한 강화를 목표로 한다. 전략목표는 크게 3가지로 1) 인권기반 개발협력 기반 중점분야 사업 실행, 2) 국제인권규범 이행과 인권증진, 3) 취약계층 권리중심의 개발협력 확대이며 자세한 내용은 〈그림 1〉과 같다. 특히 인권기반 개발협력과 관련해 협력대상국 인권상황 분석에 기초한 사업 발굴·기획과 인권기반접근에 기초한 사업 실행 및 평가 관리를 중점적으로 이행하고자 한다.

인권분야 중기전략은 인권기반 개발협력에 대한 기관의 명확한 의지와 사업적 가치에 대한 인식을 담고 있다는 점에서 의미가 있다. 무엇보다 인권이 특정 프로그램으로 한정되는 것이 아니라, '국제개발협력의 보편적 지도 원리(guiding principles)로 확립될 수 있도록 주력'함을 강조하며, 인권의 형식적 반영이나 체크리스트 수준에 머무는 '인권워싱'을 지양한다(한국국제협력단 사업전략기획실, 2021). 사업적 측면에서는 협력국의 인권규범 이행 역량 증진에 초점을 맞춘 인권옹호 프로그램과, 특정 취약계층의 인권실현에 초점을 맞춘 취약계층 권리증진

〈그림 1〉 KOICA 인권분야 중기전략(2021~2025) 체계도



출처: 〈KOICA 인권분야 중기전략, 2021~2025〉 문서를 바탕으로 저자 작성.

프로그램을 구분함으로써 다양한 사업 방법론의 가능성을 열어주고 있다. 마지막으로 전략목표별 성과지표 및 산출물 지표를 구체적으로 제시하여, 인권 주류화 사업이 형식적 인권워싱에 그치지 않고 구체적으로 인권 증진의 효과와 성과를 달성할 수 있는 기틀을 마련했다.

3. KOICA 인권기반 개발협력 관련 이행현황

1) 인권경영 이행현황

제1기 인권경영(2018~2020)은 국가인권위원회의 권고에 따라 인권경영 시스템을 구축하고, 규정 제정과 제도 구축을 중심으로 운영되었다(한국국제협력단 사회적가치혁신팀, 2021). 2021년 시작된 제2기 인권경영은 1기에서 수립한 제도를 바탕으로 인권 이슈를 고도화하는 과제 이행에 중점을 두었다. 1기 인권경영의 세부적인 성과는 아래 내용 및 〈표 2〉와 같다.

첫째, 인권경영을 최상위 전략과제로 도입하고, 중장기 이행계획 수립을 통해 국제인권기준 인권경영 체계를 구축하였다. 인권 전문가 중심의 인권경영위원회 운영 및 정책 현안별 자문의견 수렴을 통해 실무와 외부자문 간 유기적 연계를 고도화하였다. 또한 UN 아동권리협약 위원회 한국 정부 심의 시, KOICA 최초로 인권정책 현황을 보고하며, 국제사회에서 인권정책 보고 책무를 이행한 것은 의미 있는 성과이다.

둘째, KOICA 직원의 고충처리를 위해 △고충 유형에 따른 대응체계 정비, △온라인 창구 시스템 통합, △고충상담인력 보강, △노사공동위원회 운영, △직장 내 괴롭힘 예방규정 신설 및 의무교육 도입 등 인권 친화적 조직운영을 위한 제도를 완비하였다.

셋째, 인권교육 콘텐츠(인권전문성, 인권감수성, 소규모 워크숍, 인권문화 확산)를 다양화하고, KOICA 직원 직무 교육제도로 정착시켜 개발협력 사업에 인권적 특성을 이해하고 반영할 수 있도록 지원하였다. 또한 파트너에게 온라인 인권교육 플랫폼을 제공하고, 인권영향평가 도입을 위한 컨설팅 과정을 운영하는 등 인권 인식제고를 위한 노력을 강화하였다.

넷째, 국제개발협력 사업 특성을 고려한 7개 부문(입지특성, 환경, 사회인권, 성비위・고충처리제도, 취약계층 권리, 안전・시설건축물 등)을 기준으로 신규 사업 대상 인권영향평가를 수행

〈표 2〉 KOICA 인권경영 추진 성과(2018~2020)

지표명/연도	2018	2019	2020
인권교육 이수자 수	328	460	571
인권교육 이수 파트너기관(수)	-	-	28
사업 인권영향평가 도입(신규사업)	-	제도정비	100%
〈인권경영 이행계획〉 달성도(%)	-	-	100%

출처: 〈KOICA 제2기 인권경영 이행계획, 2021~2023〉 바탕으로 저자 작성.

하였고, 사업수행파트너 대상 컨설팅을 통해 평가 품질을 고도화하였다. 또한 〈제3차 국제개발협력 기본계획〉 상 인권영향평가 제도 과제가 포함되도록 견인하고 선제적으로 실시한 점은 1기 인권경영의 성과 중 하나이다.

2) 인권기반 개발협력 이행현황

먼저 협력대상국 인권상황 분석을 반영한 사업 발굴·기획과, 인권기반 사업 발굴 가이드라인 수립과 관련, KOICA는 아직 국별협력사업 기획단계에서 UN 인권 메커니즘 기반 협력대상국 인권상황 분석을 실행하지 않고 있다. 앞으로 인권기반접근 사업 발굴 가이드라인을 위한 연구 진행 및 하반기 사무소 안내를 계획하고 있다고 한다. 또, 인권기반 개발협력 이행의 이해관계자 정례대화에서 나온 주요 협의 사항을 인권분야 중기전략(2021~2025)에 반영했으며, 현안에 따라 자문위원회, 전문위원회, 시민사회와의 대화를 추진할 예정이라고 한다.

다음으로 인권기반접근에 따른 성과관리 및 평가부문에서, 2021년 8월 〈KOICA 인권분야 중기전략, 2021~2025〉을 수립하여, 인권분야 3대 프로그램인 △인권기반 개발협력, △인권보호, △취약계층 권리증진을 설정하였다. 이를 위해 100인 전문위원의 의견을 청해 들었고, KOICA 본부와 해외사무소 워크숍, 외교부 실무협의와 이사회 의결 과정을 거쳐 완성되었다.

마지막으로 취약계층(여성, 아동, 장애인, 청소년) 대상 인권 접근 강화를 위해, KOICA 장애포괄적 사업 이행을 위한 개선방안 연구를 진행하였다. 한국장애인개발원과 협력 연구를 진행하였으며, 사업모델을 △포용적 교육, △사회경제적 역량강화, △의료재활 등 다각화하고 발굴을 확대할 계획이다.

3) 인권분야 지원 실적 무상원조통계(2016~2019)

KOICA 인권분야 지원 성과를 파악하기 위해 2016년~2019년 경제협력개발기구(Organisation for Economic Cooperation and Development, OECD) CRS(15160) 코드 사업[1]과 취약계층 특정 대상 사업을 중심으로 규모를 살펴보았다(한국국제협력단 사업전략기획실, 2021). 그동안 KOICA는 인권 사업 유형에 대한 정의가 불분명하여 과거 사업 실적을 파악하기 어려운 구조적 한계점이 있었는데, 분석 결과 인권기반접근 차원에서 사업을 기획, 실행 및 평가하지 않아 인권 주류화 사업의 실적을 파악하기 어렵고, 취약계층 분리 통계 시스템 역시 체계화 되어 있지 않았다. 〈표 3〉과 같이 지원 규모를 보면, CRS 15160(인권)에 해당하는 사업이 전체 지원 규모의 0.04%이며, 취약계층 특정 대상 사업이 약 10%로 현저히 낮다(한국국제협력단 사업전략기획실, 2021).

다음으로 취약계층 특정 대상 사업[2] 지원 규모는 전체 지원 규모 대비 10.42%에 해당한다

1) CRS 코드(15160) 부여 사업이란 국제인권조약에서 정의하는 시민·정치적 권리 및 경제·사회·문화적 권리의 증진을 위해 국제, 지역 그리고 국가 및 지방정부 차원의 인권 제도 및 정책과 관련된 활동을 지원하는 사업에 해당한다.

〈표 3〉 CRS 15160 지원 규모 *통화: USD

연도	CRS 15160(인권)
2016	185,413
2017	212,129
2018	370,120
2019	139,366
총계	907,028

출처: 〈한국국제협력단 사업전략기획실, 인권분야 중기전략(2021~2025)〉 바탕으로 저자 작성.

〈표 4〉 KOICA 취약계층 특정 대상 사업 지원 규모 *통화: USD

대상	2016	2017	2018	2019	총계
아동	26,837,727	30,072,896	30,929,553	31,238,994	119,079,170
청소년/청년	8,492,399	12,680,835	26,460,326	28,987,286	76,620,846
장애인	6,368,943	5,470,314	4,915,018	2,537,364	19,291,639
난민	5,649,957	4,524,056	12,414,461	10,806,603	33,395,077
총계	47,349,026	52,748,101	74,719,358	73,570,247	248,386,732

출처: 〈KOICA, 인권분야 중기전략, 2021~2025〉 바탕으로 저자 작성.

(한국국제협력단 사업전략기획실, 2021). 대상별로 지원 규모를 분류하면, 아동〉청소년/청년〉난민〉장애인 순으로 사업을 수행하였다. 〈표 4〉와 같이 세부적으로 보면 전체 사업규모 대비 아동 대상 사업(4.99%), 청소년/청년 대상 사업(3.21%), 난민 대상 사업(1.40%), 장애인 대상 사업(0.81%)이다. 취약계층 대상 중에 장애인 대상 사업이 가장 낮은데, 민관협력사업 수의 소폭 증가 대비 국별 협력 사업이 감소하였기 때문이다. 난민 대상 사업의 경우, 난민 이슈(로힝야 난민, 시리아 유입 난민 등)로 인해 대폭 증가하고 있으며, 순 지원 규모는 중동 CIS 지역이 가장 높다. 지역별로는 아시아〉아프리카〉중남미 지역〉중동 CIS 순으로 사업이 수행되고 있는데, 지역별로 우선 지원 대상이 상이한 것이 특징이다.

Ⅲ. 인권기반접근(HRBA) 국제 동향

1. UN기구의 인권기반접근(HRBA)

2) 취약계층 특정 대상 사업이란 〈국제개발협력기본법〉상 명시된 여성・아동・장애인・청소년을 직접적인 지원 대상으로 하는 사업을 주체별로 분류한 사업을 뜻하며, 인도적 지원 사업 대상인 난민도 포함된다.

1) UN인권최고대표사무소

UN인권최고대표사무소(Office of the High Commissioner for Human Rights, OHCHR)는 모든 사람이 뒤처지지 않고 목표를 달성해 나갈 수 있도록 인권을 통한 지속가능 개발을 가속화하고, SDGs 달성에 인권을 활용하기 위해 노력하고 있다. 그 중 SDGs 이행을 측정하기 위해 UN 총회에서 채택한 글로벌 지표 프레임워크를 고려해 인권 지표 내용을 업데이트한 〈Human Rights Indicators Tables – Updated with SDG Indicators〉문서는 주목할 만한 자료이다.

OHCHR은 시민적·정치적 권리와 경제적·사회적·문화적 권리를 모니터링하기 위해 지표 식별을 위한 공통 접근 방식으로 개념 및 방법론적 프레임워크를 채택하였다. 프레임워크는 구조지표(structural indicators), 절차지표(process indicators) 및 성과지표(outcome indicators)를 개발할 것을 권고하고, 이러한 지표는 국제 인권 기준의 수용과 약속부터 국가의 의무 달성을 위한 노력까지 의무 이행 평가를 돕는다. 프레임워크는 국제 인권 규범과 원칙에 따라 문맥상 적합하고 실현 가능한 지표를 식별하기 위한 지침을 제공한다. 또한 질적 지표뿐만 아니라, 양적 지표에도 초점을 맞춰 차별이 금지된 유형과 취약하고 소외된 인구 집단의 세분화에 중점을 두고 지표를 단순하게 유지하기 위해 노력한다.

인권지표는 데이터에 대한 인권기반접근으로 불리기도 하는데, OHCHR은 인권기반 데이터 접근 방식(Human Rights-Based Approach to Data, HRBAD)을 개발하여 국제인권 및 통계 기준에 따라 데이터를 생산할 수 있음을 시범적으로 보여주었다. 이를 통해 취약계층의 참여를 보장하고, 평등과 비차별을 강조하는 실질적이고 규범적인 기여를 했다는 점이 주목할 만하다.

2) UN개발계획

UN개발계획(UNDP)는 UN의 개발전문 기관으로, 약 170개 국가에서 빈곤 종식과 경제·사회적 불평등 및 배제를 줄이고, 국가가 SDGs를 달성하도록 지원하고 있다. UNDP는 인권기반 접근을 보급하는데 중추적 역할을 해왔으며, 빈곤 감소를 위한 업무가 단순 자선활동이 아닌, 인권과 밀접한 연관이 있음을 천명해 왔다. 1990년대 후반부터 본격적으로 개발담론 내 인권 주류화를 구축하였는데, 시작은 1998년 지속가능한 인간개발에 인권을 통합한 정책이었다. 2003년 빈곤감소 전략에 인권을 통합하기 위한 지침을, 2005년 프로그래밍 전 영역에서 인권을 주류화하기 위한 지침을 발간하였다(UNDP, 2012). 인권 주류화를 통한 UNDP의 전반적 목표는 의무부담자와 권리보유자의 역량을 강화하는 것이다. 먼저 가장 소외되고 취약한 그룹을 포함해 모든 사람들의 권리 보호 및 실현을 위한 국가 개발 및 빈곤 감소 전략의 기획 및 이행을 위해 주요 의무부담자인 정부를 지원하고, 권리보유자가 개발 과정에 참여할 수 있도록 지원한다.

인권기반접근을 적용하기 위해 UNDP는 개발협력 관계자들이 프로그램 기획단계(desk-

based)에서 참고할 수 있는 문제 분석방법과 예비 체크리스트를 제공한다. 문제 분석방법은 크게 3가지로 △원인 분석, △역할 분석, △역량의 간극 분석으로 구성되어 있으며, 프로그램의 모든 단계에서 사용 가능하지만 특히 평가와 분석단계에 적용된다. 이를 통해 개발이 필요한 이슈의 근본적 원인을 파악하고, 특별히 영향을 받는 그룹이 누구인지, 여기에 책임이 있는 이해관계자와 정부 부처가 어디인지 등, 의무부담자와 권리보유자의 역량 간극을 확인할 수 있다. 다음으로 예비 체크리스트는 인간개발을 분석하거나 측정할 때 모두 사용 가능한데, 제시된 질문들이 기본적인 내용으로 구성되어 있기 때문에 구체적인 분야는 국가별 상황과 국가의 인권조약 가입 여부에 따라 다르게 적용됨을 유의해야 한다. 체크리스트는 UNDP 실무자, 협력대상국 파트너, 다른 공여기관 및 시민사회단체들을 대상으로 만들어졌으며, 인권과 관련된 상황분석, 정책개발, 프로그램의 기획・실행・평가 시 사용하도록 권고한다.

최근 문서인 UNDP 전략계획(2018~2021)의 가장 큰 비전은 협력대상국이 SDGs를 달성할 수 있도록 돕는 것이다. 구체적인 핵심 분야로는 △빈곤의 종식(SDG1), △기후변화 대처(SDG13), △청소년과 산모의 건강 개선(SDG3), △성평등 달성 및 여성과 여아의 역량강화(SDG5), △더 큰 가용성과 세분화된 데이터 사용 보장(SDG17), △분쟁 중인 국가와 분쟁 후 국가는 개발이 그곳의 평화 구축 및 유지에 기여함(SDG1, SDG11)을 강조하였다.

3) UN아동기금

UN아동기금(UNICEF)은 1946년 창립되어 차별 없이 전 세계 개발도상국 아동을 지원하며, 아동권리옹호를 주도한 UN기구다. 아동권리협약(Convention on the Rights of the Child, CRC)에 따라 UNICEF는 당사국 협약 이행 현황을 검토할 때 참석할 수 있으며, 아동권리위원회는 전문적 조언 제공 및 보고서 제출을 요청하기도 한다(UNICEF, n.d). UNICEF는 1989년 아동권리협약이 채택된 후, 국제인권법의 규범적 절차가 어린이와 여성을 위한 개발협력 프로그램에 안내 역할을 할 수 있도록 노력을 기울여왔다(UNICEF, 2011).

UNICEF는 1998년 프로그래밍의 인권기반접근(Human Rights-Based Approach to Programming)을 도입하였다. 아동권리협약(CRC)과 여성차별철폐협약(Convention on the Elimination of All Forms of Discrimination against Women, CEDAW)에 명시된 아동과 여성의 권리를 실현하는 것이 목표이며, 업무 및 절차별로 인권 및 아동권리 원칙이 핵심적 역할을 수행하고 있다. 아동권리협약의 기본 원칙은 △비차별, △생존과 발달의 권리, △아동 최선의 이익, △아동의견 존중이 있다. UNICEF는 프로그램을 통해 개발도상국 주민들이 스스로의 권리를 주장할 수 있도록 역량강화 활동을 지원한다.

UNICEF는 당사국의 법적・정책적 프레임워크를 변경하고, 협약에 대한 전반적 이해를 높일 수 있도록 지원한다(UNICEF, 2012a). 또한 아동의 무력충돌 참여에 관한 제1선택의정서(optional protocols), 아동 매매・성매매・음란물에 관한 제2선택의정서, 개인진정에 관한 제3선택의정서의 비준 및 이행을 위해 적극 지원하고 있다. 여성은 아동 다음으로 핵심 대상이

며, 여성차별철폐협약을 기반으로 포용적 프로그램과 성평등한 세상을 만들기 위해 헌신하고 있으며, 아동권리협약과의 상호연계를 강조한다.

UNICEF는 2012년 프로그래밍의 인권기반접근에 대한 기관의 경험과 이행현황을 조사하고, 2007년부터 데이터를 기반으로 평가보고서를 발간했다(UNICEF, 2012b). 평가의 목적은 인권기반접근에 대한 조직의 이해 및 노력과 제도 도입의 장단점을 식별하고, 이를 효과적으로 적용하기 위해 필요한 변경사항 검토를 위해 진행되었다. 평가 결과, 1) 변화에 맞춰 조직의 인권기반접근을 명확히 개념화하는 정책을 개발하고, 2) 국가차원에서 인권기반접근 원칙이 프로그램 전반에 동등하고 강력하게 적용되어야 하며, 3) 직원이 중점 영역별로 인권기반접근을 해석하고 운영하기 위한 도구 및 가이드라인을 제공할 것을 주문하였다.

2. 주요 공여국의 인권기반접근(HRBA)

1) 스웨덴

스웨덴은 인권기반접근을 개발협력의 핵심 프레임워크로 채택하고 있는 대표적인 국가로서, 국제개발협력의 주요 목표를 '가난하고 억압받는 사람들을 위한 보다 나은 삶의 전제조건을 만드는 것'으로 명시하였다. 인권기반접근이 공적개발원조(Official Development Assistance, ODA)에 어떻게 반영 및 실현되고 있는지 살펴보기 위해 스웨덴 원조기관인 국제개발협력청(SIDA) 개발정책의 목적과 원칙, 법률 및 정책기반, 적용 분야 그리고 평가 순서로 살펴보겠다.

먼저 스웨덴 국제개발정책의 목적은 '평등하고 지속가능한 개발에 기여'하는 것이다. 3대 우선순위로 △민주주의와 인권, △환경과 기후, △성평등과 개발에서의 여성의 역할을 설정하고, 8가지 하위 목표로 1) 인권 존중, 2) 민주주의 및 굿거버넌스, 3) 성평등, 4) 지속가능한 자원활용과 환경보호, 5) 경제발전, 6) 사회발전 및 안보, 7) 분쟁관리 및 인간 안보, 8) 글로벌 공공재와 도전과제를 제시하였다(곽재성 외, 2018). SIDA는 인권기반접근을 개발협력에 적용할 때 P.L.A.N.E.T 실행원칙을 사용하고 있다.

스웨덴은 2003년 국회에서 국제개발협력의 기본 정책 문서이자 법적 문서인 〈Shared Responsibility: Sweden's Policy for Global Development〉를 채택하며, 개발정책의 기본 정신, 방향, 중심 과제를 명시적으로 규정하였다(Ministry for Foreign Affairs, 2003). 정책법은 범정부적 국제개발 목표로 평등하고 지속가능한 개발을 설정하고, 국제개발협력 정책이 외교, 안보 및 국제 경제와 환경 정책과의 일관성을 도모할 뿐 아니라, 새천년개발목표(Millennium Development Goals, MDGs)와 같이 국제사회가 합의한 개발 목표와의 연계를 강조하였다. 또한 국제개발 관련 정책 전반에 국제인권조약에 근거한 권리의 관점과 빈곤층의 관점이 중요하게 반영될 것을 요구한다.

2010년에는 민주적 발전과 인권 증진 실현을 구체화한 〈Change for Freedom Policy for

Democratic Development and Human Rights in Swedish Development Cooperation, 2010~2014〉를 수립하였다(Ministry for Foreign Affairs Sweden, 2010). 스웨덴 정부는 이 문서에서 개발협력 수행 시 UN 국제인권조약 준수와 인권 원칙(비차별, 참여, 투명성, 책무성)을 보장하며, 인권기반접근을 채택한다고 명시하였다.

2014년에는 다양한 개발협력 방향성과 정책 영역 간의 계층 및 우선순위를 명확히 한 ODA에 대한 포괄적 정책문서인 〈Aid Policy Framework〉를 수립했다(Ministry for Foreign Affairs, 2013). 이 문서는 ODA가 추구해야 할 근본적인 가치로 △빈곤층 및 억압받는 사람들의 관점이 개발에 투영된다는 점, △세계인권선언과 국제인권조약에 근거한 인권 기준과 인권 원칙(비차별・참여・개방성과 투명성・책무성)이 원조의 모든 영역과 단계에 적용되어야 한다는 점을 강조했다.

2016년에는 기존 정책 문서들을 정비하고, 새롭게 구성된 정부의 외교 정책과 UN에서 채택한 지속가능개발 의제에 체계적으로 접근하기 위해 〈Policy Framework for Swedish Development Cooperation and Humanitarian Assistance〉를 수립하였다(Ministry for Foreign Affairs, 2016). 본 문서에서는 권리와 빈곤층 중심의 개발에 대한 관점을 고려한 정책일관성을 강조하였다. 〈표 5〉를 보면 스웨덴 국제개발협력을 아우르는 통합적 접근법으로 갈등 관점과 환경 및 기후, 성평등 관점을 명시하였으며, 이전 정책에서 포함시키지 않았던 인도적 지원 전략을 개발협력과 연계시키기 위한 노력을 구체화하고, SDGs의 17개 목표에 부합하는 8개 세부 주제를 설정했다(곽재성 외, 2018).

2018년에는 〈Strategy for Sweden's Development Cooperation in the Areas of Human Rights, Democracy and the Rule of Law, 2018~2022〉를 수립하였는데, 전반적

〈표 5〉 스웨덴 개발협력에 통합된 다양한 관점들

목표	- 가난하고 억압받는 사람들의 생활을 개선하기 위한 전제조건 형성(To create preconditions for better living conditions for people living in poverty and under oppression)
관점	- 빈곤층 관점(The perspective of the poor on development) - 권리 관점(Rights perspective) - 환경 및 기후 관점(Environmental and climate perspective) - 성평등 관점(Gender equality perspective) - 갈등 관점(Conflict perspective)
8개 세부 주제	- 인권, 민주주의 그리고 법치주의(Human rights, democracy and the rule of law) - 양성평등한 건강(Gender-equal health) - 교육 및 연구(Education and research) - 이민 및 개발(Migration and development) - 포용적 경제 개발(Inclusive economic development) - 환경, 기후, 천연자원(Environment, climate and natural resources) - 평화롭고 포용적인 사회(Peaceful and inclusive societies) - 글로벌 성평등(Global gender equality)

출처: 〈Policy Framework for Swedish Development Cooperation and Humanitarian Assistance〉 17쪽을 참고하여 저자 작성.

목표는 모든 사람의 평등한 권리를 보호 및 존중하는 안전하고 정의로우며 포용적인 민주주의 사회에 기여하는 것이다(Ministry of Foreign Affairs, 2018). SIDA의 활동은 크게 3가지, 1) 포용적인 민주주의 사회, 2) 모두에게 평등한 권리, 3) 안보, 정의 및 책무성에 초점을 맞추고 있다.

SIDA는 핵심 분야별로 인권기반접근 문서를 만들어 가이드라인을 제공하고 있는데, 분야는 1) 교육 및 기술 개발(education and skills development), 2) 환경과 기후(environment and climate), 3) 보건(health), 4) 시장 개발(market development), 5) 평화 구축(peace building), 6) 민간 부문 협업(private sector collaboration), 7) 연구(research), 8) 지속 가능한 농촌생활체계(sustainable rural livelihoods systems), 9) 물과 위생(water and sanitation), 10) 민주적 거버넌스(democratic governance), 11) LGBTI 권리(rights of LGBTQI persons), 12) 장애인 권리(rights of persons with disabilities), 13) 아동 권리(rights of children)으로 구성되어 있다(SIDA, 2021).

SIDA는 인권기반접근이란 인권적 목표를 추구하는 것만으로는 충분하지 않으며, 목표 달성하는 방법 역시 중요하기 때문에, 전 과정에서 프로그램 모니터링과 평가가 수반되어야 함을 강조한다. 2020년 SIDA는 2010년부터 2019년까지 스웨덴 개발협력에서 인권기반접근의 적용 및 효과에 대해 살펴보고, 어떤 점이 잘 이행되었고 아닌지를 분석한 평가 보고서인 〈Evaluation of the Application and Effects of a Human Rights Based Approach to Development: Lessons learnt from Swedish Development Cooperation. What works well, less well and Why?〉를 출간했다(SIDA, 2020). 실제 개발협력에서 인권기반접근을 적용한 결과, SIDA 직원과 협력파트너는 국제인권기구 및 메커니즘의 권장사항과 고려사항을 제한적으로만 사용했다고 밝혔다. 일부 직원들은 인권기반접근의 4가지 원칙을 엄격히 준수하는 것에만 집중한다면 단순히 체크리스트를 표시하는 것에 지나지 않는다며, 이를 피하기 위해 권리보유자와 의무부담자간 권력 불균형 문제를 해결해야 한다고 밝혔다. 그러나 스웨덴 정부가 국제개발협력을 통해 인권을 증진하고 보호한 점은 긍정적인 결과였으며, 인권이 열린 사회를 향한 개발 촉진이라는 목표를 장기적으로 지원해 주었다고 답변했다.

2) 독일

독일은 개발협력 정책의 궁극적 가치로 인권을 강조하며, 1990년대부터 이를 위한 실행 툴로 인권기반접근을 시도하였고, 2000년대 초반부터 구체적 지침으로 발간하였다. 특히 독일 연방경제협력개발부(Federal Ministry for Economic Cooperation and Development, BMZ)가 2011년 채택한 〈Human Rights in German Development Policy: Strategy〉을 보면, 인권전략은 개발정책에 대한 경제적 지침뿐 아니라, 법적 구속력이 있는 의무사항으로 규정하고 있다(BMZ, 2011). 이는 개발협력을 수행하는 전문협력기관인 독일 국제협력공사

(Deutsche Gesellschaft für Internationale Zusammenarbeit, GIZ), GIZ International Services, 독일재건은행(Kreditanstalt für Wiederaufbau, KfW)와 하위기관인 독일 기술협력기구(Deutsche Investitions- und Entwicklungsgesellschaft, DEG)에 적용된다. BMZ는 개발협력 주무기관으로 본 전략 및 지침에 근거하여 각 시행기관의 인권전략 수행을 평가한다. 또한 시민사회는 자국 ODA의 인권적 접근에 대한 모니터링을 통해 인권침해에 대한 사전·사후감시 활동을 하고 있다. 독일 인권기반접근 정책의 목적과 원칙, 정책, 중점 분야 그리고 지역별 가이드라인 순서로 살펴보겠다.

대부분의 독일 개발협력 파트너 국가는 국제인권협약을 비준했기 때문에 인권을 존중, 보호 및 보장할 의무가 있다. 하지만 많은 국가에서 정치적·시민적·경제적·사회적·문화적 인권이 침해되고 있으며, 이러한 인권 침해는 현재 개발협력 정책 과제인 기후 위기, 이주 및 실향민, 코로나19로 인해 더욱 상황이 악화되고 있다. BMZ는 2011년 〈Human Rights Strategy〉와 〈2030 Reform Strategy〉를 통해 독일 개발협력정책에서 인권은 질적 지표이자 지침이 되어주는 핵심 역할임을 강조하였다(GIZ, 2021).

BMZ와 모든 이행기관들은 개발협력 프로그램을 인권의 기준 및 원칙에 기반하여 운영하는데, 인권기반접근은 프로젝트의 잠재적 위험을 평가 및 방지하고, 인권분야에서 긍정적인 영향을 미칠 수 있도록 돕는다. 핵심 인권전략인 〈Human Rights in German Development Policy〉를 보면 국제법, 유럽연합(EU)법, 독일법에 근거를 두고 있다. 독일 인권전략의 중요한 지점은 9개의 국제인권조약에 준거하고 있다는 것인데, 이러한 조약에 따라 국가는 인권을 존중, 보호 및 이행할 3가지 의무를 진다. 또한 인권원칙인 △참여와 역량강화, △비차별과 기회의 평등, △투명성과 책무성을 기반으로 운영한다. 인권기준으로는 경제·사회·문화적 권리 측면에서 △가용성, △접근성, △품질, △수용성을 적용하고 있다. 인권기반접근에는 3가지 활동도 포함되는데, 1) 권리보유자(국민) 및 의무부담자(정부 기관)의 역할 강화, 2) 인권원칙(참여, 권한부여, 차별 금지, 기회의 평등, 투명성, 책무성)을 활발히 적용함으로써 더 효과적이고 지속가능한 프로젝트 운영, 3) 인권기구와 협력을 통해 파트너 국가의 인권 보호 향상이다.

독일은 2004년 인권에 대한 개발정책인 3개년 시행계획인 〈Development Policy Action Plan on Human Rights, 2004~2007〉 발간하였고, 국별 및 부문별 개발협력전략에 인권적 접근을 반영하기 시작했다.

2008년 12월에 출간된 〈Applying Human Rights in Practice – Fact Sheet on Human Rights-Based Approach in Development Cooperation〉은 개발 실무자들에게 독일 개발정책의 우선 분야에서 어떻게 인권기반접근을 적용할 수 있는지의 각 권리에 대한 정의와 가이드라인을 제공한다(BMZ, 2018). 실행기관들과 협력대상국의 인권 관련 역량 강화를 지원하기 위한 목적으로 만들어졌으며, 독일의 모든 정부, 준정부, 독일정부의 재원을 받는 시민사회가 수행하는 모든 국제 활동에서 권리기반접근이 적용될 수 있도록 하였다. 분야별로 1) 교육, 2)

(분권화) 민주주의, 시민사회, 공공행정, 3) 에너지, 4) 보건, 5) 정의- 사법개혁, 6) 식량 안보 및 농업, 7) 환경 및 천연 자원, 8) 물과 위생, 9) 지속가능한 경제발전이 있다.

BMZ의 다양한 정책적 노력이 축적되어 2011년 독일 개발정책에서 중요한 의미를 가지는 〈Human Rights in German Development Policy〉가 채택된다(BMZ, 2011). 독일 정부와 협력대상국 정부가 비준하고 있는 국제인권조약 및 국제노동기구(International Labour Organization, ILO)협약에 근거하여 개발협력에서도 인권 규범을 준수해야 할 의무가 발생한다는 것이다. 본 전략은 개발협력 분야의 의사결정과 관련된 독일 개발 정책의 형성에 대해 법적 구속력이 있는 조항을 포함하고 있다. 인권과 관련 있는 개발협력 프로그램의 발굴, 심사, 계획, 실행, 관리 및 평가 시 의사결정과 관련해서도 지침을 제공한다. 또한 인권은 자국 영토 내에서 뿐만이 아니라, 국제기구나 다른 나라에서의 행위와 관련해서도 당사국에 의무를 발생시킨다는 점이 중요한 특징이다.

BMZ의 〈Guidelines on Incorporating Human Rights Standards and Principles, including Gender, in Programme Proposal for Bilateral German Technical and Financial Cooperation〉을 보면, 인권기준과 원칙을 적용하기 위한 방법으로 1) 주류화, 2) 직접적인 인권증진 프로그램, 3) 다층위적인 대화, 4) 여성, 장애인을 포함한 포괄적인 개발, 5) 다양한 개발도구 활용을 선택하여 사업에서 구현하고자 노력하고 있다(BMZ, 2013). 독일 국제개발협력은 다양한 권리보유자 중에 여성, 장애인 그리고 아동에 대한 정책과 가이드라인에 집중하는데, 최근에는 성소수자에 대한 통합전략을 출간하기도 했다.

BMZ는 기본적으로 UN의 인권조약과 원칙을 따르되, 수원국에서 프로젝트를 진행하기 위해서는 지역별 인권제도와 특수성, 인권메커니즘을 확인할 수 있도록 △아프리카, △아랍, △아시아, △중남미 지역별로 가이드라인을 제공한다(BMZ, 2019). 아프리카를 예로 들면, 〈ABC of Human Rights for Development Cooperation: The African Human Rights System〉문서에는 아프리카 인권제도에 대한 기본적 내용을 소개하며, 독일 개발 실무자들이 아프리카 대륙의 파트너 국가와 정책 대화 및 프로그램을 형성할 때 아프리카 인권 시스템을 활용하도록 권장한다.

3. 소결

인권기반접근(HRBA) 국제 동향을 살펴보니, UN과 공여국 정책의 공통점은 과거 인권이 '인권과 개발'이란 주제로 다뤄졌다면, 현재는 SDGs 달성에 초점을 맞추고 인권을 통합적으로 운영하고 있다는 점이다. 특히 UN에서 인권기반접근의 중추적 역할을 맡고 있는 OHCHR은 인권지표와 SDGs 지표를 연계하여 SDGs 달성에 인권을 활용하기 위한 프레임워크를 채택하였고, 국제인권 및 통계 기준에 따라 데이터를 생산할 수 있음을 시범적으로 보여주었다. 또한 인

권적 목표를 추구하는 것으로 충분하지 않으며, 목표를 달성하는 방법과 모니터링 및 평가도 중요함을 강조하고 있다.

스웨덴(SIDA)은 10년간 인권기반접근의 적용 및 효과에 대해 분석 및 평가한 보고서를 2020년 출간하였는데, 일부 직원들은 인권기반접근 원칙의 준수 여부를 지키는 것에만 집중할 경우 단순히 체크리스트를 표시하는 것에 지나지 않는다고 지적했다. 인권기반접근을 위한 정책을 수립했다고 해서 인권을 존중하는 운영이 바로 이루어지는 것이 아니기 때문이다. KOICA가 1기 인권경영에서 인권기반 개발협력을 위한 제도 구축의 기반을 마련했다면, 2기 인권경영에서 사업에서 인권 기반접근의 실행 기반을 마련하고자 준비 중인 것도 같은 맥락이다.

스웨덴과 독일은 인권기반접근에서 인권적 목표 달성 방법을 강조하고 있다. 스웨덴은 핵심 분야별로 인권기반접근 문서를 만들어 총 13개 항목별 가이드라인을 제공하고 있으며, 독일은 다양한 권리보유자 중에 여성, 장애인, 아동/청소년 그리고 성소수자에 대한 분야별 정책 문서를 지속적으로 업데이트 하고 있다. 독일은 개발협력을 위한 지역별 인권문제와 시스템을 소개한 가이드라인도 제공하는데, 기본적으로 UN 인권조약과 원칙을 따르되 지역별 인권의 특수성을 고려할 수 있도록 정보를 제공하는 것이 특징이다.

Ⅳ. KOICA 인권기반 개발협력 프로그램 시행방안(Framework)

〈KOICA 인권분야 중기전략〉에 따르면, 인권기반 개발협력 프로그램의 실제 기획 및 수행을 위해서는 사업 발굴을 위한 협력국 인권상황 분석과 인권기반접근법에 기반한 사업실행 방안이 구축 및 보완되어야 한다. 본 장은 앞에서 제시한 KOICA 정책과 국제동향을 기반으로, KOICA에서 실질적으로 인권기반 개발협력사업을 기획하는 방법론을 제시하고자 한다. 이를 위해 '인권기반 개발협력 프로그램 시행 방안'을 제시하고, 인권에 기반한 '문제 및 원인 분석', '행위자 역할 및 역량 분석' 그리고 PANEL 원칙의 적용을 KOICA 사업에 직접 적용해 실례를 제공하고자 한다.

〈표 6〉과 같이 인권기반 사업기획도 기존 사업기획과 동일하게 '사업 준비 및 기획-상황 분석-사업 설계-사업 실행-모니터링 및 평가'의 구조를 따른다.

1단계 '사업 준비 및 기획 단계'는 국가, 지역 및 대상을 선정함에 있어 해당 국가의 인권상황 전반을 파악하고, 지역별 인권의 취약성과 사회 계층 및 그룹별 인권 침해 및 미비점을 조사하여 수혜자 및 수혜지역 선정에 반영한다. 현장 사전조사를 통해 자료상 파악된 인권 상황을 확인하고, 가능하면 참여적 기법을 활용하여 현지 주민의 의견과 정보를 취합하도록 한다.

2단계 '상황 분석'은 문제의 이면에 있는 근본 원인을 분석하고, 해당 문제와 연계된 인권침해의 피해자인 권리보유자와, 인권증진의 책임을 지는 의무부담자를 파악한다. 권리 중심의 사업 대상자 파악은 인권 실현을 위해 필요한 역량과 재원을 분석하고, 책임과 권한을 명확히 하

〈표 6〉 인권기반 개발협력 프로그래밍의 단계

단계	주요 과제
1단계: 사업 준비 및 기획	· 사업 지역 및 대상 선정 · 현지 사전 조사
2단계: 상황 분석	· 문제규명 · 원인분석 · 행위자(역할) 분석 · 역량분석
3단계: 사업 설계	· 목표, 세부목표 및 지표 설정 · 실행 전략 및 활동 계획
4단계: 사업 실행	· 사업 실행 중 모니터링
5단계: 모니터링 및 평가	· 사후 모니터링과 평가

출처: 저자 작성.

는데 도움이 된다.

3단계 '사업 설계'는 상황분석을 바탕으로 보완 및 증진하고자 하는 인권 이슈를 사업목표의 중심에 두고, 이에 기반한 세부 목표, 지표 및 활동 계획을 수립한다. 모든 개별 활동에 인권 요소가 반드시 언급될 필요는 없으나, 사업 실행 전략과 주요 목표에는 PANEL 원칙 적용과 국제 인권 규범에 명시된 인권의 실현이 반영되어야 한다.

4단계 '사업 실행'에 있어서는 사업 목표의 달성뿐 아니라, 사업수행 과정에서 현장 파트너 및 KOICA의 인권 책무성이 이행되도록 하며, 사업과 연계된 인권침해가 발생할 경우 즉각 대응하도록 한다. 또한 사업 실행 시 권리보유자의 실질적 참여를 위한 역량 강화가 보장되어야 한다.

마지막으로 인권기반 개발협력 사업의 '모니터링 및 평가'를 위해 1) 기존 개발사업 관련 양적·질적 지표와, 2) 중기전략에서 제시된 인권지표를 활용하고, 3) 분야별로 특성화된 인권 지표를 추가함으로써 프로그램이 달성하는 권리 증진의 효과성을 측정할 수 있다.

인권분야 중기전략에서 인권기반 개발협력 기획 및 실행의 주요 과정으로 제시된 △문제 및 원인 분석, △행위자 역할 및 역량분석, △국제인권 규범 및 원칙의 적용을 상기 프로그래밍과 합치시킬 경우, 〈그림 2〉와 같은 인권기반 개발협력 프로그램 시행 방안(framework)을 제시할 수 있다.

동 원고의 핵심 프레임워크를 구체적으로 설명하자면 첫째, '인권기반접근 문제 및 원인 분석'이란 인권에 기반한 빈곤 및 저개발의 구조적 문제들을 다층적으로 분석하고, 중장기적으로 해결해야 할 문제의 근본 원인을 파악하는 것이다. 즉, 표면적으로 드러난 문제 해결보다는 문제의 구조적 원인을 파악하여 지속적인 변화를 사업의 목표로 삼는 것을 말한다.

둘째, '인권기반접근 행위자 역할 및 역량 분석'은 수혜자와 그 밖의 사업 관련 주체들을 △

〈그림 2〉 KOICA 인권기반 개발협력 프로그램 시행방안(Framework)



출처: 저자 작성.

권리보유자 및 △의무부담자로 구분한다. 여기서 권리보유자(rights-holders)란 인권의 보장 및 증진을 누릴 정당한 권리를 가진 개인 또는 집단을 의미하며, 의무부담자(duty-bearers)는 해당 인권을 보장할 의무가 있거나 침해할 소지가 있으며, 이에 대한 책임을 지는 개인 또는 집단을 의미한다. 따라서 인권 관점으로 개발협력 사업이 지원 및 협력할 대상자를 분류하고, 사업 실행에 그들의 역할과 사업 목표를 재설정해야 한다.

셋째, 'PANEL 원칙의 적용'은 사업 영역 및 대상과 상관없이 인권기반 개발협력 사업 실행 시 공통적으로 반영되어야 할 원칙으로 △참여(participation), △책무성(accountability), △비차별(non-discrimination), △권한 강화(empowerment), △인권기준과의 연계(linkages to human rights standards)를 의미한다. 이는 사업 준비단계와 사업 수행 시 현장에서 사업 운영자 및 참여자 모두가 준수해야 할 원칙으로, 사업의 이행 평가를 위해 성과지표에 반영될 수 있다. PANEL 원칙 외에도 분야에 따라 국제인권규범에 의거하여 추가적인 원칙들을 사업에 적용할 수 있다. 가장 널리 통용되는 분야별 원칙으로는 보건 분야에서 가용성(availability), 접근성(accessibility), 수용성(acceptability), 적합성(adaptability)을 아우르는 4A 원칙이 있고, 교육 분야에서는 적합성 대신 교육의 질(quality)을 강조한 AAAQ원칙이 있다.

1. KOCIA 분야별 중기전략: 교육 및 보건 분야 사례

본 장은 KOICA 실무자의 이해를 돕기 위해 인권기반접근(HRBA)을 최근 문서인 〈KOICA 교육 및 보건분야 중기전략〉에 적용하는 방안을 시연하고자 한다. 먼저 기존 교육 및 보건분야 중기전략을 보여주고, 이를 인권기반접근 기준에 맞게 재디자인하는 경우, 어떤 점이 달라지는지 한눈에 볼 수 있도록 인권 기준으로 비교・분석하였다. 기존 개발협력 사업 기획과 대비하여 인권기반접근(HRBA)의 가장 큰 차이점은 1) 사업 행위자를 권리보유자 및 의무부담자로 나누어 이들의 권한과 의무를 명확히 하는 점, 2) 사업의 초점을 권리보유자의 인권 및 역량 증진에 두는 점, 3) 사업 전반에 걸쳐 권리보유자를 위한 참여, 책무성, 비차별, 권한강화, 국제인권규범 적용을 한다는 점이다.

KOICA의 교육 및 보건분야 중기전략 문서를 보면, 현재 KOICA는 인권기반접근의 여러 방법론 중 보건・교육・성평등・거버넌스・평화 등 분야별 인권 주류화를 도입하고 있으며, 이미 상당 부분 인권 요소가 잘 반영되어 있음을 알 수 있다. 하지만 아직 전적으로 인권기반접근을 적용했다고 보기에는 미흡하며, 본 장에서 다뤄진 예시를 참고하여 보완 및 강화해 나간다면 장기적으로 협력국 및 수혜자의 인권 개선과 사업 효과성 확대에 기여할 것으로 기대한다. 여기서는 인권기반접근의 시행 방법론 중 '행위자 역할 및 역량 분석'과 'PANEL 원칙의 적용'을 기준으로 KOICA 교육 및 보건분야 중기전략에 적용해 보았으며, 분석 내용은 다음과 같다.

1) 〈KOICA 교육분야 중기전략〉에 인권기반접근 적용

〈KOICA 교육분야 중기전략, 2021~2025〉은 '협력대상국 교육시스템 개선 및 교육 주체 참여 제고를 통해 모든 인간의 교육권 향상에 기여'라는 목표에서 드러나듯 인권적 접근을 반영하고 있다(한국국제협력단, 2021a). 또한 교육받을 권리와 성평등, 양질의 교육, 평생 학습 등 기존 교육 원조의 양적 기여에서, 교육 수혜자의 권리 중심적이고 질적 혜택을 확대하는 개발협력사업 전환을 명시하고 있다. 특히 교육사업 전반에 소외계층 및 여성들의 참여를 확대하고, 사업 계획 및 수행에 있어 교육 주체의 참여와 주인의식을 강화하고자 하는 점은 PANEL원칙에도 부합한다. 다만 권리보유자의 역량 강화와 참여를 강조하는 것에 반해, 교육 당국 및 정부 등 의무부담자에 대한 역할이 명확하지 않아 보인다. 〈표 7〉과 〈표 8〉은 △권리보유자・의무부담자, △PANEL 원칙을 기준으로 기존 KOICA 교육분야 중기전략과 인권기반접근을 적용한 교육분야 중기전략을 비교 분석한 내용이다.

〈표 7〉 및 〈표 8〉과 같이 비교 분석한 결과, KOICA 교육분야 중기 전략은 PANEL 원칙 중 참여, 비차별, 권한 강화에 대한 원칙을 명확히 반영하고 있으며, 국제인권조약의 교육권 관련 주요 요소들을 간접적으로 지향하고 있다. 다만 책무성 원칙에 따라 권리보유자를 위한 사업 정보공개와, 인권기준 연계에 있어 UN 사회권 규약 등 주요 인권기준의 명시 등 보완될 사항들이 있다.

〈표 7〉 권리보유자 및 의무부담자 기준 KOICA 교육분야 중기전략 비교 분석

	KOICA 교육분야 중기전략(현안)	KOICA 교육분야 중기전략(HRBA안)
권리보유자	- 취약/소외 계층 및 여성에 대해 우선시. 권리 주체로서 사업 참여 강조	- 교육권 및 평등권이라는 특정 인권의 침해와 차별에 취약한 집단으로서 여성 및 기타 취약계층 교육권 강조. 권리 주체로서 사업의 단계별 구체적 참여 방안 명시
의무부담자	- 협력국 정책 및 전략과의 조화를 위한 협력 파트너로서 학교 관계자, 중앙 및 지역정부와의 협력	- "의무부담자"로서 정부, 교육당국, 학교 관계자의 인권 책무성 이행을 위한 취약점 보완 및 역량강화 위해 협력
기타		- 교사와 학부모 및 지역주민의 경우 권리보유자인 동시에 의무부담자이기도 함 - 사업 영역과 내용에 따라 권리 영위 또는 의무 이행을 위한 사업의 대상자로 분류될 수 있음

출처: 저자 작성.

〈표 8〉 PANEL 원칙 적용한 KOICA 교육분야 중기 전략 비교 분석

	KOICA 교육분야 중기전략(현안)	KOICA 교육분야 중기전략(HRBA안)
참여	- "KOICA는 사업의 기획, 이행, 평가, 환류 전 과정에서 교육의 핵심주체인 학생, 교사, 학부모들이 주인의식을 가지고 사업에 참여할 수 있도록 협력국 교사와 지역주민, 학부모와의 협력체계 및 참여를 강화를 지속 적으로 지원할 것이다."	- 거버넌스 강화 및 리더십 발휘 등 질적으로 높은 수혜자의 참여 보장을 위한 권리보유자 역량강화 구체적 지원 방안 명시 - 성과지표 및 산출물 지표상 권리보유자 참여 반영
책무성	- 사업성과 관리를 분산하고 사업 단계별 성과지표를 별도 추진하는 한편 현지 당국과 공조를 통해 협력국 정책 및 전략과 조화를 도모함	- 사업 추진에 있어 교육 당국을 비롯 의무부담자 및 KOICA가 권리보유자에게 추진 사업을 통해 증진된 인권과 국가의 의무 이행에 대한 정보를 공개하는 한편 의무 이행을 위한 역량 강화와 전략적 지원을 도모함
비차별	- 소외계층 및 여성에 대한 사업 우선성을 강조하는 한편 ICT 역량 등에서 "국가 간 또는 국가 내에서 성별, 연령별, 소득별 격차가 존재"함을 명시	- ICT 역량 강화 영역을 넘어 KOICA 교육 사업이 비차별이라는 범분야 이슈에 기여하는 임팩트 강조 및 평가 방안 추가 - 유관지표 개발 및 반영
권한 강화	- 기초교육의 질 제고, 디지털 교육 역량강화, 청년인재 양성 등 권리보유자의 역량 강화를 위한 전략과 프로그램을 담고 있음	- 인권 보장 및 실현에 있어 필요한 정부당국, 공무원, 교사 등 의무부담자의 역량강화 서술시 의무부담자의 책무성 실현 주목
인권 기준 연계	- 양질의 교육, 인간의 교육권 향상, 디지털/직업/고등교육 등 UN 인권규약에 부합하는 전략 목표와 미션 구축됨	- 경제적・사회적・문화적 권리규약을 비롯한 여성차별철폐협약, 아동권리협약, 장애인권리협약상 유관 조항을 분석 명시하고, 교육권의 4대 요소인 가용성(availability), 접근성(accessibility), 수용성(acceptability), 적합성(adaptability)에 따라 사업수행평가지표 추진

출처: 저자 작성.

2) 〈KOICA 보건분야 중기전략〉에 인권기반접근 적용

〈KOICA 보건분야 중기전략, 2021~2025〉은 '인간의 건강권 보장'을 명시하며 인권기반접근을 반영하고 있으며, 건강불평등을 모성사망률 및 아동사망률의 원인으로 분석하고 해결해야 할 의무 과제로 삼고 있다(한국국제협력단, 2021b). 보건 분야는 인권을 비롯한 범분야 내재화를 표명할 뿐 아니라, 책무성, 비차별, 권한강화 및 인권기준 연계까지 상당히 잘 반영되어 있음을 알 수 있다. 또한 여성, 아동, 청소년을 미비한 보건권의 권리보유자로 인식하고, 그들의 보건권 실현과 사업 참여를 강조하고, 의무부담자로서 정부의 국민 보건 서비스 제공 책임과 기초보건 서비스 확대를 위해 시설 위주가 아닌 역량 및 제도 강화에 초점을 맞추고 있다.

향후 인권기반 개발협력 사업을 위해서는 보건분야 역시 권리보유자와 의무부담자의 권한과 의무를 명확히 할 필요가 있다. 우선 권리보유자의 경우, 세분화된 계층별 취약성을 기준으로 주요 건강권 이슈들을 파악할 필요가 있다. 의무부담자의 경우, 국가 및 정부라는 포괄적 의무부담자 개념 외에, 보건 당국과 공공의료 종사자 등 국가의 인권증진 의무에 기여하는 담당 인력의 책무성에 대한 명시 또한 필요하다. 〈표 9〉와 〈표 10〉은 △권리보유자・의무부담자, △PANEL 원칙을 기준으로 기존 KOICA 보건분야 중기전략과 인권기반접근을 적용한 교육분야 중기전략을 비교 분석한 내용이다.

〈표 10〉을 보면 PANEL 원칙의 적용에 관하여 KOICA 보건분야 중기전략은 참여, 책무성, 비차별, 권한강화 그리고 인권 규범의 연계를 일부분 반영하고 있음을 알 수 있다. 보건분야 중기전략에서 PANEL 원칙 적용 시 추가 보완 요소는 1) 성과 및 산출물 지표 개발에 권리보유자 참여를 도모하고, 2) 책무성 및 비차별에 관한 지표들을 추가 삽입하는 것이다. 인권기반 개발협력 프로그램을 시행하기 위해 이행될 추가 전략 사항들은 〈표 10〉과 같다.

〈표 9〉 권리보유자 및 의무부담자 기준 KOICA 보건분야 중기전략 비교 분석

	KOICA 보건분야 중기전략(현안)	KOICA 보건분야 중기전략(HRBA안)
권리 보유자	- 여성, 아동, 청소년에 대해 우선시. 권리주체로서 사업 참여 강조	- 소아 예방접종부터, 가임기 여성 성생식 보건, 그리고 장애인 및 노인등 권리 보유자별 취약 건강권에 대한 세부 파악 필요
의무 부담자	- 보편적 건강보장을 위한 국가에 의한 보건의료전달체계 구축의 필요성과 이를 위한 KOICA의 지원	- 의무부담자로서 정부, 보건 당국, 공공보건 시설 및 공공보건 종사자들의 의무 이행 필요성 명시
기타		- 특정 그룹의 경우 사업 영역과 내용에 따라 권리 영위 또는 의무 이행을 위한 사업 대상자로 분류될 수 있음. 일례로 부모의 경우 보편적 건강권의 권리보유자인 동시에 아동 건강권의 의무부담자이기도 함.

출처: 저자 작성.

〈표 10〉 PANEL 원칙 적용한 KOICA 보건분야 중기전략 비교 분석

	KOICA 보건분야 중기전략(현안)	KOICA 보건분야 중기전략(HRBA안)
참여	“여성, 아동, 청소년… …들이 사업의 기획, 실행, 모니터링, 피드백에 능동적으로 참여토록 하여 주도적이고 지속가능한 삶을 영위할 수 있도록 지원한다.”	- 거버넌스 강화 및 리더십 발휘 등 질적으로 높은 수혜자의 참여 보장을 위한 권리보유자 역량강화 구체적 지원 방안 명시 - 성과지표 및 산출물 지표상 권리보유자 참여 반영
책무성	“성과 프레임워크 개정 및 데이터 중심의 체계적인 성과 관리를 통하여 성과 관리 역량을 배양하고 그 결과를 국제사회에 공유한다.”	- 사업에 추진에 있어 보건 당국을 비롯 의무부담자 및 KOICA가 권리보유자인 국민에게 추진 사업을 통해 증진된 인권과 국가의 의무 이행에 대한 정보를 대중에 공개
비차별	“건강불평등은 국가 간, 그리고 국가 내에 존재하는 불평등을 모두 포함하는 것으로, 이는 필연적이며 불가항력적인 현상이 결코 아니라, 우리의 노력에 따라 피할 수 있는 사회현상이며 동시에 모든 사람들의 건강권을 위해 반드시 해결해야 할 과제이다.”	- 범분야 이슈로서 차별의 극복을 위한 근본원인 분석 및 해결책 개발 노력 강조 - 성과지표 및 산출물 지표상 차별 감소 지표 반영
권한 강화	“개별 보건소 또는 병원 단위 사업을 지양하고, 보건의료전달체계 전반을 강화하는 요소를 포함하도록 함으로써 지역 및 국가단위의 통합적인 보건역량을 강화한다”	- 보건권 보장을 위한 역량 강화에 있어 권리보유자의 의료 정보 및 서비스에 대한 접근과, 해당 정보의 활용에 대한 계획 추가
인권 기준 연계	“SDGs는 건강권을 인간의 기본적인 권리로 인식하며, 이를 보장하기 위해 보편적 건강보장을 달성하고자 한다. 보편적 건강보장은 취약계층을 비롯한 모든 이들이 필수 보건의료서비스를 이용할 수 있으며, 건강 문제로 인해 개인과 가족의 삶이 붕괴되어 가난을 초래하고, 가난을 영속시키는 일이 발생하지 않도록 필수 보건의료서비스에 대한 재정적 보호를 하는 것을 의미한다”	- 경제적・사회적・문화적 권리규약을 비롯, 여성차별철폐협약, 아동권리협약, 장애인권리협약상 유관 조항을 분석 명시하고, 건강권의 4대 요소인 ▲가용성, ▲접근성, ▲수용성, ▲질에 따라 사업수행평가지표 개발

출처: 저자 작성.

2. 결론

KOICA 인권기반접근 관련 정책 수립현황을 살펴보면, 이미 상당 부분 인권 요소가 반영되어 있기 때문에 인권기반 사업과의 차이가 표면적으로 크지 않게 느껴질 수도 있다. 하지만 비교 분석 표에서 볼 수 있듯이, 인권기반 사업은 근본 문제 해결 지향을 통한 사업 임팩트 확대, 인권 증진을 위한 인권중심 사업 초점의 강화, 그리고 권리보유자 중심의 사업 디자인 등 단순히 인권 요소가 반영된 과거 개발협력 사업과 사업의 지향점과 지표기준이 다르다. 따라서 현재 KOICA 정책 및 사업 내 다층적으로 내재화되어 있는 인권요소를 개발협력의 핵심 원칙으로 주류화한다면 사업의 효과성, 지속가능성, 책무성, 투명성을 증진할 수 있을 것으로 보인다.

다만 진정한 인권기반 개발협력의 구현은 정책 수립에 있지 않고, 문서를 실행하는 KOICA

직원과 파트너 기관의 이해도와 숙련도에 달려 있다. 때때로 인권기반접근 주류화 노력은 개발협력사업 수행·관리자에게 또 다른 업무 부담으로 여겨져 계약 체결을 위한 체크리스트 작성 수준의 요식행위로 행해지는 등 자칫 인권워싱으로 전락하기 쉽다. 따라서 개발협력사업에 인권기반접근 적용 시 사업의 효과성과 지속가능성 확대가 동시에 이루어져야 하며, 이해관계자의 역량 및 인권감수성도 중요한 요소가 될 수 있다. 실무자의 부담을 덜어주기 위해서라도 향후 사업 수행 시 간단하게 적용할 수 있는 구체적인 인권기반접근 실행 가이드라인을 제공하고 인권 교육을 실시할 뿐 아니라, 실제적인 평가 및 모니터링 기능도 강화되어야 할 것이다. 또한 인권기반 개발협력 프로그램을 위한 신규 사업을 개발하는 방법 외에도 기존의 사업을 인권기반 접근법에 따라 재디자인하고 개선시키는 방안도 의미 있는 실행 과정이 될 것이다.

참고문헌

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Implementation Framework of KOICA's Human Rights-based Development Cooperation Programming

Ha Eun Seong (Representative, Good Neighbors International Cooperation Office in Geneva)
Hyejung Kim (Independent Researcher)

Abstract

This study analyzes the need for the human rights-based approach (HRBA) to strengthen the efficiency and sustainability of KOICA's operations in international development cooperation. It reviews KOICA's human rights policies and explores the limits of need-based development. Policy inputs are provided by studying HRBA policies of UN and donor agencies. The study recommends an implementation framework for HRBA programming as the first step toward establishing KOICA's human rights based development cooperation model. The framework is built around the triple pillar of root-cause analysis, rights-holders / duty-bearers analysis, and the application of PANEL principle. A practical example for practitioners is provided by applying the HRBA framework to the KOICA medium term strategy for education and health. Difference between previous KOICA projects with human rights elements and HRBA projects might look minimal. However, closer examination reveals the essential and fundamental difference of human rights-based approach as follows 1) HRBA clearly identifies rights and responsibilities of stakeholders by differentiating rights-holders from duty-bearers 2) HRBA puts human rights and empowerment of rights-holders in the center of development. 3) HRBA promotes the principles of participation, accountability, non-discrimination, empowerment, and linkage to human rights standards across all stages of a development programme.

Key words: Human Rights Based Approach, Human Rights and Development, Human Rights Programming, Human Rights Management

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Special Article

Role of Digital Technology in Achieving the Sustainable Development Goals: Focus on the Efforts of the International Community

SeongHoon Yoo*
Youngmin Song**

Abstract

In the international community, digital technology is considered as the means of achieving the Sustainable Development Goals (SDGs) and effectively implementing development cooperation projects. Development cooperation activities are conducted in the field of digital technology in various forms by the major donors, namely the US, the UK, Germany, France, and Japan, who have been emphasizing on the importance of digital technology in development cooperation. These activities include the development of SDG mapping tool by the International Telecommunication Union, the establishment

* **Corresponding author:** Associate Fellow, Korea Information Society Development Institute / shyoo@kisdi.re.kr
** **Co-author:** Researcher, Korea Information Society Development Institute / youngms@kisdi.re.kr

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of World Bank's Digital Development Cooperation System, and the announcement of the Digital Agenda 2030 by the Asian Development Bank. To improve the effectiveness of the development cooperation projects, cooperation in high-performing sectors should be further strengthened, considering the correlation between digital technology and SDGs. It is also necessary to support data-driven digital solutions and improve the understanding of the digital value chain.

Key words: Sustainable Development Goals (SDGs), Development Cooperation, International Organizations, Digital Technology, Information and Communications Technology (ICT)

Ⅰ. INTRODUCTION

The world is currently underscoring the importance of digital technology more than ever amid the pandemic crisis of the Coronavirus disease 2019 (COVID-19). According to the Organization for Economic Cooperation and Development (OECD), the demand for communication networks has increased significantly since the outbreak of COVID-19, and the consumption of content and application services has also surged. In the context of the COVID-19 pandemic, the importance of digital technology is being emphasized to establish a disease monitoring and response system and to raise public awareness.

However, as digital transformation accelerates due to the spread of COVID-19, the digital divide between and within countries is being reinforced. Digital transformation is being demanded across all aspects of social life, but digital inequality due to differences in digital capabilities between countries is gradually worsening. Under these circumstances, the international community's interest in the case of Korea's response to COVID-19 using digital technologies such as information and communications technology (ICT) and artificial intelligence (AI) has increased. Korea has been responding to COVID-19 through a social distancing system using digital technology, a 3T (Test, Trace, Treat) response system based on innovative technology, and measures to contain the spread through the use of data.

In July 2021, the Korean government announced the "Korean version of the New Deal 2.0". The Korean version of the New Deal is a national development strategy tailored to new demands and changes in circumstances to overcome the crisis and lead the global economy in the face of the worst economic downturn and job shock caused by COVID-19. It is a strategy to support with the 'Digital New Deal' to spread dynamism and the 'Green New Deal' for transition to an eco-friendly economy, and 'Strengthening the Safety Net' to protect the vulnerable. Among them, the 'Digital New Deal' is a strategy of developing a data economy based on the ICT industry, which Korea has considerable strengths in. The 'Digital New Deal' strengthens the DNA (Data-Network-AI) ecosystem for digital innovation in all industries, and spreads digital convergence and convergence to various fields to foster new hyper-connected industries such as the metaverse, cloud, and block chain, education, medical care, etc. It is promoted with the task of expanding the

achievements that can be felt by the people in real life, including the advancement of digital infrastructure such as small to medium enterprises (SMEs) and the spread of digitalization of small and medium-sized businesses.

The spread of COVID-19 around the world is creating various global challenges, and the gap between countries is also widening. At this point, the urgency of global solidarity and international cooperation is being emphasized due to global challenges such as the global spread of infectious diseases, climate change and natural disasters. The rise in the poverty rate due to COVID-19 and the widening development gap between countries is exacerbating the relative poverty level. Emerging countries have an opportunity to enter middle-income countries, while conflict-vulnerable countries are experiencing an increase in refugees.

Korea's 3rd Comprehensive Basic Plan for International Development Cooperation has a vision to realize global values and win-win national interests through cooperation and solidarity in consideration of this global situation. Among them, the 'Promotion of Innovative Official Development Aid (ODA)' was mapped as a strategic goal. In order to bridge the gap between countries, it is necessary to promote innovative ODA, which can be realized in the following ways. Partner countries can strengthen their innovation capabilities by supporting science and technology innovation, bridging the digital divide, promoting the ODA related to the 'Digital New Deal', and supporting public administration innovation. In addition, the innovation of ODA programs must be achieved through the development of the innovative business models, advanced methods for supporting the projects, and new contents. The importance of digital technology is being emphasized in the entire process of international development cooperation.

At this point, this report intends to examine the role of digital technology in achieving the Sustainable Development Goals (SDGs), a key agenda for international development cooperation, through the examples of international organizations and donors.

Ⅱ. DIGITAL TECHNOLOGY AND THE SDGS

Katz and Callorda (2018) presented the relationship between digital technology and the economy through ICT penetration rate and economic growth rate. When

ICT dissemination in a country exceeds a certain level (minimum threshold) for a leap forward, economic growth occurs. The growth rate will appear as a positive relationship with the increase in the ICT penetration rate. However, after passing the saturation point, the pace of economic growth due to the spread of ICT slows down.

Meanwhile, International Telecommunications Union (ITU) introduced the results of analysis on the impact of wired and wireless broadband penetration and digitization on the gross domestic product (GDP) growth in 2018. The effect of a 1% increase in each variable (wired, wireless, digitization) on national GDP was as follows: wireless broadband (0.15022), digitization (0.13310), and wired broadband (0.07715), respectively. The impact is also mentioned.

In this report, the correlation between digital technology and the SDGs will be explored through the examples of ITU, SDG Academy, and Huawei.

1. International Telecommunications Union (ITU)

Looking at the final document of the SDGs adopted by the United Nations in 2015, the spread of ICT and global interconnection has potential to promote human progress, bridge the gap of digital divide, and provide a huge boost to the development of a knowledge society. In addition, ICT is expected to play a key catalyst role in promoting economic development, social inclusion, and environmental protection, which are the three pillars of sustainable development.

The ITU is an ICT specialized organization under the United Nations that develops and disseminates rules and standards for wired and wireless communications, radio waves, broadcasting, and satellite frequencies, and conducts international coordination and cooperation activities. To maximize the impact of digital technologies on global development, the ITU argues that it can be achieved through new ways of cooperation and the integration of efforts and resources among various stakeholders.

The ITU is working with the Digital Impact Alliance (DIAL) to carry out the "Mainstreaming ICT for SDG" project, which provides the necessary guidelines for decision makers and donors investing in ICT to solve existing problems in achieving the SDG targets. In particular, a whole-of-government approach is necessary for

the scale of ICT investment to have an impact while emphasizing the importance of building a strong strategic foundation for integrated digital transformation, horizontally and vertically, across the government.

In addition, the ITU is promoting the campaign of "#ICT4SDG", judging that ICT is the foundation of today's digital economy and has infinite potential for the rapid achievement of SDGs and the ultimate development of people's lives. The role of ICT in achieving the 17 goals of the SDGs is presented through concrete examples (〈Table 1〉).

2. SDG Academy

The Sustainable Development Solutions Network (SDSN), an advisory body of the UN, is a global network of experts who study the problems and solutions related to the UN's sustainable development. Founded in 2012 with the support of the UN Secretary-General, the SDSN is conducting various projects to research and promote the implementation of the SDGs.

The SDG Academy is a representative education platform of the SDSN, a global initiative of the UN. The SDG Academy creates and selects free, open educational materials on sustainable development and provides them as a global public good. The educational contents of the SDG Academy cover the main issues related to the 17 SDGs and a variety of interdisciplinary topics. The SDG Academy creates and administers (graduate-level) courses on sustainable development for learners worldwide. From solving urban problems to human rights issues and climate change, each course addresses the fundamental issues facing our world today.

Among the 34 training courses of the SDG Academy, there is content labeled 'Tech for Good: The Role of ICT in Achieving the SDGs'. The course, consisting of a total of 10 topics, was developed by UNESCO and the Regional Center for Research on Information Society Development (Cetic.br/NIC.br) of the Brazil Network Information Center. This course brings together people from the fields of ICT and sustainable development to show how digital technologies are empowering billions of people around the world by providing access to education, healthcare, banking and government services. It also shows how big data is being used to inform smarter, evidence-based policies to fundamentally improve people's lives.

〈Table 1〉 Relationship between SDGs and ICT

Category	Description
	Thanks to digital financial services, many are entering the digital economy for the first time, and access to financial services has proven to be a pivotal step in helping people out of poverty. · Support for corporate management in the formal market rather than the barter method. · Increase revenue by providing price information. · Providing access to microfinance and loans through mobile banking. · Reduction of transaction costs through mobile payment systems. · Support for policy development through computer simulation.
	ICT helps farmers to improve crop yields and productivity by increasing access to online content (market information, weather forecasts, educational programs, etc.). · Smart farming to increase yield by monitoring soil and climate conditions. · Reducing waste through food supply chain adjustment. · Promoting soil resilience and realization of sustainable agriculture through crop management.
	ICT has the potential to provide benefits across the global healthcare ecosystem. · Providing low-cost health check-ups and diagnosis through IoT. · Support for health officials in island areas through special diagnostic equipment. · Providing epidemic forecast through big data analysis.
	The digital learning revolution (mobile learning) can help bridge economic barriers, urban-rural disparities, and gender disparities. · Increasing access to online learning materials and the educational community. · Learning support and effective instruction through big data analysis. · Provision of specialized training.
	■ Target Details: Increase of scholarships for higher education (including ICT, engineering and science programs) in developing countries and underdeveloped countries to study in developed countries and other developing countries.
	ICT provides great opportunities for gender equality by giving everyone access to the same online resources and opportunities. · Providing access to education and information to increase women's empowerment. · Providing access to microfinance and secure payment systems.
	■ Target Details: Strengthening the use of technology, especially ICT, that plays a role in assisting women in empowerment.

〈Table 1〉 Continued

Category	Description
	Contribution to ensuring fair and sustainable expansion of services through smart water management (supply measurement, monitoring, etc.) using ICT. · Reducing losses through smart water management. · Improving the safety through water quality supervision. · Reducing the risk of contamination through smart water management.
	Green technologies and processes using ICT have the potential to play an important role in significantly reducing global greenhouse gas emissions. · Management of energy use through smart meters and devices. · Reducing carbon dioxide emissions and creating a sustainable energy supply through the use of micro grids and smart grids.
	ICT itself is changing the way business is done in all areas and creating new employment opportunities. · Reducing raw material and carbon dioxide emissions required for the production process and increasing productivity through the use of IoT and AI. · Small-scale customer-centric manufacturing processes through additive manufacturing.
	Emphasizing the importance of establishing a communication network system (digital infrastructure) to promote the development of scalable solutions for all SDGs. · Implementation of smart infrastructure through ICT, IoT, big data, and AI. · Promoting resilience through preventative maintenance and continuous oversight. · Promoting learning through the plasticity of advanced ICT. · Rapid prototyping and continuous innovation.
	■ Target Details: Increasing access to ICT technology.
	ICT helps reduce inequality within and between countries by increasing access to information and knowledge for disadvantaged groups in society (women, girls, persons with disabilities, etc.). · Reducing income inequality between countries by decentralizing and localizing production through the use of ICT. · Reducing inequality among individuals in a country by improving education through the use of ICT.
	ICT provides innovative approaches for more effective and holistic management of cities through applications such as smart buildings, smart water management, intelligent transport systems (ITS) and new efficiencies for energy consumption and waste management. · Smart energy-efficient city operation through IoT. · Improvement of urban transportation system through big data analysis and AI. · Creating safe residential areas and responsible city government.

〈Table 1〉 Continued

Category	Description
	Positive impact on energy consumption reduction through the use of ICT such as cloud computing, smart grid, and smart metering. · Promoting harmony between consumers and producers through the combination of IoT and big data. · Increasing efficiency and sustainability through additive manufacturing and just-in-time manufacturing.
	ICT not only enables global monitoring of climate change, but also strengthens resilience by helping to mitigate the impacts of climate change through forecasting and early warning systems. · Reduction of carbon dioxide emissions from production and consumption through big data analysis and the use of AI. · Developing and mimicking precedents in the information sharing and learning community.
	ICT plays an important role in ocean conservation and sustainable use. · Tracking marine resources with detection and monitoring technology. · Promotion of resource management and utilization of early warning system with big data and AI.
	ICT (satellite-based monitoring, big data, etc.) plays an important role in the conservation and sustainable use of terrestrial ecosystems and prevention of biodiversity loss. · Protecting resources through land resource use, deforestation, and soil monitoring.
	ICT plays an important role in crisis management, humanitarian aid and peace-building. · Promotion of citizens' rights and interests through big data analysis and data disclosure policy. · Increasing government transparency through big data analysis and monitoring. · Promoting a culture of international tolerance through direct trade.
	ICT plays a role as a catalyst for all three pillars (economic growth, social inclusion, and environmental sustainability) of sustainable development. · Revitalizing the formation of a new community through citizen participation through ICT. · Providing development cases through knowledge diffusion and sharing through big data and AI.
	■ Target Details: Implementation of technology banks and establishment of a science and technology innovation capacity-strengthening system for underdeveloped countries.

Source: ITU (2021) & KISDI (2018).
Note: SDG, Sustainable Development Goals; ICT, Information and Communications Technology; AI, Artificial Intelligence; ITU, International Telecommunications Union.

In addition, it addresses new issues such as privacy, data management, risks to cybersecurity, e-waste, and widening social disparities. Ultimately, the course looks at how stakeholders are coming together to answer the big question about what our future will look like in a hyper-digitized world (〈Table 2〉).

3. Huawei

Huawei, China's leading electronics and telecommunication equipment manufacturing company, annually reports on the 'ICT Sustainable Development Goals

〈Table 2〉 Syllabus for 'Tech for good: The role of ICT in achieving the SDGs'

Module	Main contents
Module 1. Welcome to the digital age	- Bridging the digital divide - Three approaches to ICT for the SDGs
Module 2. Technology for governments and citizens	- Equity and access to services - User-driven public administration - It's all about the data - The open government approach - Case study: Aadhaar in India - The challenges of digital government
Module 3. ICT infrastructure	- Enabling ICT: The role of infrastructure - Promoting digital inclusivity - Innovations in infrastructure - Building smart sustainable cities - ICT as infrastructure: A look at societal platforms
Module 4. ICT innovations in health	- Achieving universal health coverage - Improving healthcare delivery - Involving the community - Evidence in action: Success stories of ICT and health - Emerging challenges and opportunities
Module 5. Learning in knowledge societies	- The ecosystem of ict for education - Education for a connected world - Sharing knowledge: ICT, openness, and inclusion - Measuring ICT and education: Frameworks - Measuring ICT and education: Data and indicators - Rethinking ICT for education policies
Module 6. Promoting financial inclusion	- An introduction to financial services - The potential of digital platforms - Mobile payments for marginalized communities - ICT for enabling access to credit - Replacing the cash economy - The challenges of ICT-enabled financial inclusion

〈Table 2〉 Continued

Module	Main contents
Module 7. Measurement and metrics	- Managing data for the SDGs - ICT Innovation for statistical development - Engaging with data: Communications and citizen empowerment - Case Study: Brazil's Cetic.br - Measuring ICT - ICT for monitoring the SDGs - Limitations of ICT for monitoring the SDGs
Module 8. Artificial intelligence	- An introduction to artificial intelligence - Who drives the agenda on "AI for Good"? - Implications for discrimination and exclusion - The human side of AI: Risks and ethics
Module 9. Concerns for our digital future	- Privacy and the importance of trust - Knowing your data rights - Cybersecurity - Combatting disinformation - The downsides of digital
Module 10. The way forward	- The New Work force: Six Points about the future of work - The meaning of work in the digital era - The open movement - Closing thoughts on ICT for the SDGs

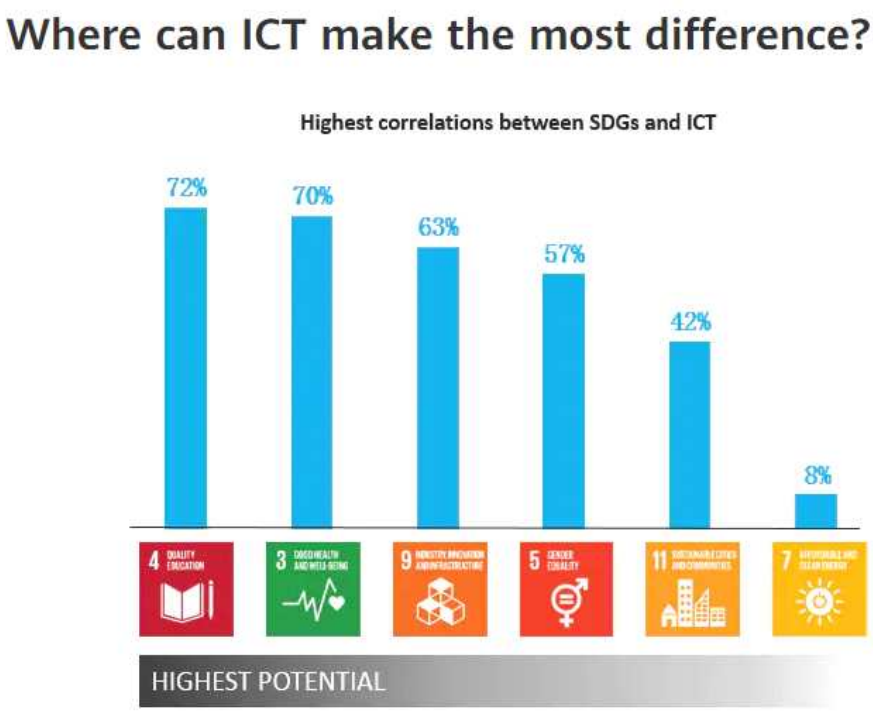
Source: SDG Academy Web page (2021).
Note: ICT, Information and Communications Technology; SDG, Sustainable Development Goals; AI, Artificial Intelligence.

Benchmark', which SDG goals have a high potential to be highly related to ICT, and the possibility of achieving those goals by 2030 with the support of ICT.

According to Huawei (2019), it is analyzed that the fields with the highest correlation with ICT are education (SDG 4), health (SDG 3), infrastructure (SDG9), and gender (SDG 5) (〈Figure 1〉).

Meanwhile, Huawei (2019) presents the most important role of ICT in leading sustainable development in three aspects. First, the connectivity provided by ICT infrastructure and the availability of devices such as mobile phones, tablets and computers, play an important role in enabling access to information and services. It provides a basis for development in one way or another for all SDGs, affecting both individuals and organizations in developed and developing countries. Thus, unequal access to all kinds of resources, information, education and services exacerbates that gap globally.

〈Figure 1〉 Correlation between SDG and ICT



Source: Huawei (2019)
Note: SDG, Sustainable Development Goals; ICT, Information and Communications Technology.

Second, improved accessibility leads to instant or near-instantaneous speed of connectivity and communication between people, homes, intelligent devices, IoT nodes, and the companies and organizations with which people interact. This can increase productivity and innovation across a wide range of sectors and communities, and provide the real-time communication needed to rapidly scale critical human-centric services.

Finally, access to information and communications provided by ICT has tremendous potential to increase the productivity and efficiency of many human activities. Digital technologies provide solutions for more efficient ways to collect and analyze large data sets with the help of big data analytics tools that have far-reaching implications for SDG progress.

Ⅲ. INTERNATIONAL COMMUNITY'S EFFORTS

As discussed in the previous chapter, ICT plays a major role in achieving the SDGs, and its role is expected to increase in the future. The international community is making various efforts to achieve SDGs through ICT. Multilateral donors and donor countries recognize the importance of ICT in achieving the SDGs and are seeking concrete implementation measures to close the digital divide between developed and developing countries.

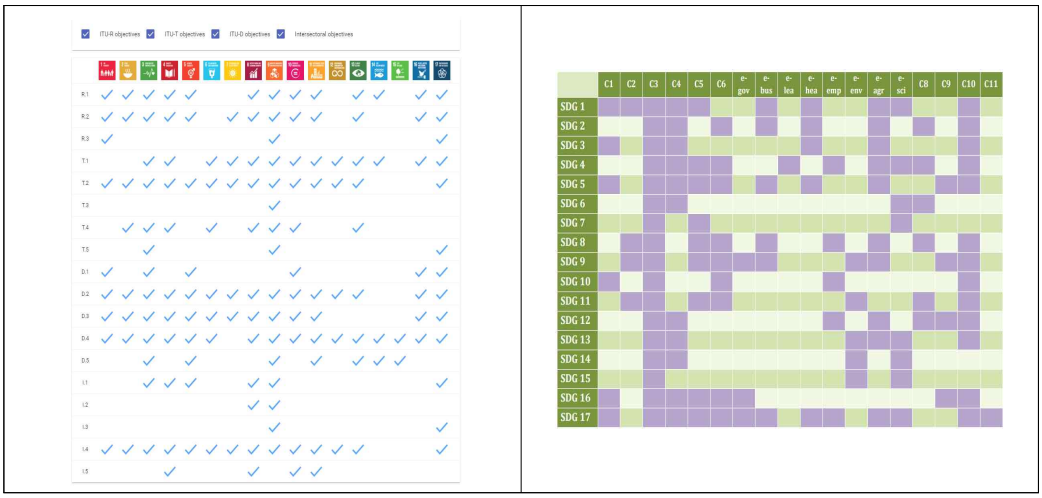
1. Multilateral Donors

1) International Telecommunications Union (ITU)

The SDG Mapping Tool was developed to show, through comprehensive visuals, how ITU activities contribute to the SDGs. ITU has identified the relationship between the SDGs and the ITU objectives (Strategic Framework, Connect 2020) and the Action Lines of the World Summit on the Information Society (WSIS).

The mapping work directly links the SDGs and WSIS Action Plans designated to continue strengthening the impact of ICT for sustainable development. All ITU activities are planned, implemented, and evaluated in connection with the achievement of the SDGs (〈Figure 2〉).

〈Figure 2〉 Example of using the SDG mapping tool



Source: SDG Mapping Tool Web page (2021).
Note: SDG, Sustainable Development Goals; ITU, International Telecommunications Union.

2) World Bank (WB)

The WB has been actively promoting the achievement of SDGs through digital technology, starting with the "World Development Report 2016: Digital Dividends" report and the establishment of the "Digital Development Partnership (DDP)" in 2016.

The report "World Development Report 2016: Digital Dividends" points out that while digital technologies are spreading rapidly around the world, they are not bridging the gap in digital dividends, i.e., the wide range of benefits that digital technologies can provide. The WB believes that digital technologies have spurred growth, expanded opportunities and improved service delivery, but the impact of digital technologies is unevenly distributed, and the digital divide, particularly the gap in Internet access, must be bridged for anyone and anywhere.

Meanwhile, the WB predicts the impact and effect of digital technology development on the global economy and each country in the future through the 'Digital Development Partnership (DDP)', and continuously observes and analyzes the changes and side effects occurring around the international community. It also provides a platform that can support technology development and infrastructure construction related to the digital revolution. The platform will bring together public and private sector partners to promote support for developing countries in shaping and implementing digital development strategies and initiatives.

The WB emphasizes that the following areas should be prioritized for effective implementation of digital technology-based projects in developing countries:

- Utilization of data and indices for development projects
- Development of the digital economy environment
- Cyber security
- Generalization of the internet
- Establishment of e-Government
- Establishment of digital service platform

3) Asia Development Bank (ADB)

With the announcement of 'Strategy 2030' in 2018, ADB began to put the importance of digital technology to the fore to achieve the SDGs. 'Strategy 2030'

suggests a direction for ADB to effectively respond to the changing needs of the Asia-Pacific region, and proposes that ADB should go for the prosperous, inclusive, resilient, and sustainable Asia and Pacific through the strategy.

ADB pointed out that technological advances in various fields are significantly changing the way goods and services are produced, distributed, delivered and consumed, and also emphasized that these innovative technologies are important principles that can lead new industries and improve people's lives.

ADB has prepared seven strategies to achieve this vision (〈Table 3〉).

〈Table 3〉 7 Strategies to achieve 'Strategy 2030'

Order	Agenda	Main contents
1	Resolving remaining poverty and reducing inequality	· Creating decent jobs for human development and social cohesion. · Building social safety nets (education, training, and health).
2	Accelerating the process of gender equality	· Strengthening the power of women and girls to improve gender equality and actively considering them in the business process. · By 2030, 75% of all projects will be carried out in the direction of improving gender equality.
3	Reinforcing environmental sustainability by coping with climate change and building Resilience to climate and disasters	· By 2030, 75% of all projects will be implemented in a way that can mitigate and adapt to climate change.
4	Creating a livable city	· Creating integrated solutions for building green, competitive, resilient and inclusive cities.
5	Promoting rural development and food security	· Supporting efforts for market connection, agricultural production and safe food, non-agricultural income increase, use of advanced technology, smart farming, etc.
6	Governance and institutional capacity building	· Improving governance and creating an environment for sustainable growth. · Helping developing countries overcome economic shocks, provide services and build capacity.
7	Fostering regional cooperation and integration	· Enhancing the competitiveness of developing countries by improving regional connectivity. · Supporting cooperation to alleviate border issues such as climate change, pollution, energy and water security, and disease transmission.

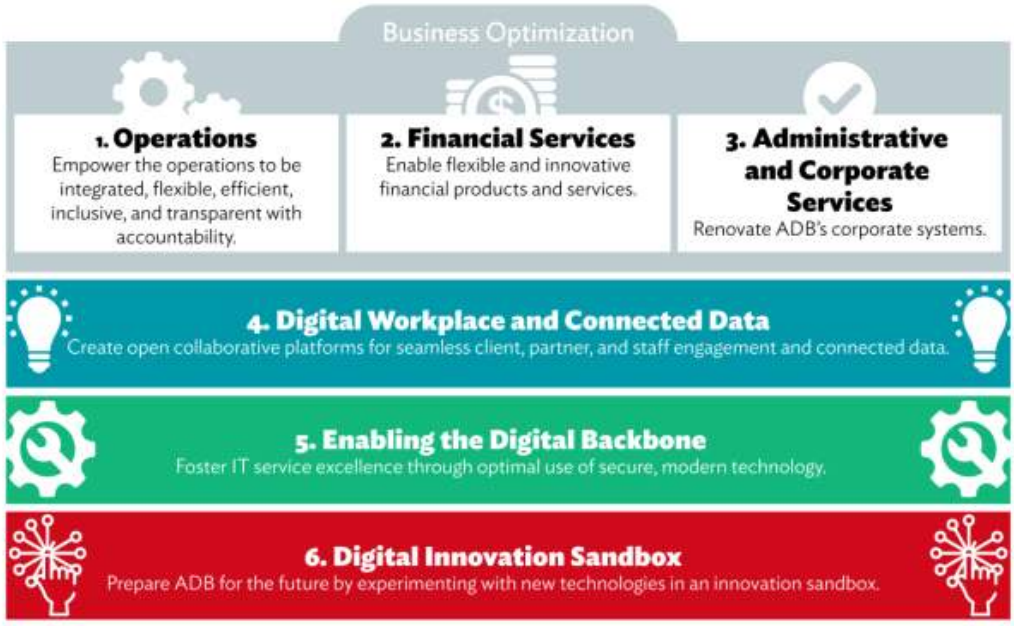
Source: ADB (2018a).
Note: ADB, Asia Development Bank.

In line with the establishment of 'Strategy 2030,' ADB presented 'Digital Agenda 2030' to provide a vision and roadmap for ADB's digital transformation. The purpose of the initiative is to respond to the demand amongst its clients and partners as well as the organization as a whole for a more modern and connected ICT system.

'Digital Agenda 2030' presents a phased implementation, emphasizing that the first phase builds and optimizes ADB's core ICT system and supports ADB to benefit from rapid digital transformation in the Asia-Pacific region (laying the groundwork for digital transformation). In the subsequent phase, the main content is to further develop digital innovation to increase the integration and connectivity of ICT systems and to improve digital products and services (〈Figure 3〉).

Meanwhile, ADB is discussing development strategies by country, sector, and topic toward the digital economy by holding the 'Digital Development Forum (DDF)'. At the forum held in 2018, discussions took place among members to find ways to maximize promising digital technologies for development in the context of the Fourth Industrial Revolution.

〈Figure 3〉 Programs of the Digital Agenda 2030



Source: ADB (2018b).
Note: ADB, Asia Development Bank.

2. Donor Countries

1) United States of America: US Agency for International Development (USAID)

USAID, which is called the leader in digitalization, announced 'Digital Strategy 2020-2024', which contains an institutional vision for development and humanitarian assistance in the rapidly evolving digital environment in 2020. The strategy emphasizes the creation of an open, secure and inclusive digital ecosystem that can contribute to broad and measurable development and humanitarian outcomes. Through this, it was intended to support the self-reliance of emerging market countries.

USAID has two crucial and interconnected strategic objectives in achieving this digital strategy. The first objective is to improve measurable development and humanitarian outcomes through the responsible use of digital technologies in USAID programs. The second goal is to strengthen the openness, security and inclusion of the national digital ecosystem. Specifically, USAID tried to utilize digital technology throughout development cooperation projects through 'Digital Strategy 2020-2024' and to support partner countries in establishing a sound digital ecosystem by spreading digital best practices. In addition, by establishing an open, stable, and inclusive digital ecosystem, it was intended to strengthen the digital capabilities of the underprivileged and promote development cooperation with various actors such as businesses and civil society.

The focus areas of the 'Digital Strategy 2020-2024' include bridging the gender gap through empowerment of women, cybersecurity, digital healthcare, digital literacy, financial inclusion, innovative technologies, and information sharing. In order to provide effective support in these areas, various related organizations need to have a role and cooperate, and continuous funding must be made.

Data, security, and digital payment systems can be established based on a digital society, and the importance of human resource development in partner countries is emphasized in the process. In addition, emphasizing the importance of developing a government policy framework for bridging the digital divide between countries, national broadband policies, universal services, and public-private cooperation are important means to a digital society (〈Figure 4〉).

〈Figure 4〉 Tracks for achieving the goals of 'Digital Strategy 2020~2024'



Source: USAID (2020).
Note: USAID, US Agency for International Development.

2) United Kingdom: Foreign, Commonwealth and Development Office (FCDO)[1)]

In 2018, the UK published the 'Digital Strategy 2018-2020: Doing Development in a Digital World' to lead the world in an open, modern and innovative approach to development, emphasizing digital technology as the core of its work. A key objective of the 'Digital Strategy 2018-2020' is to make the UK to be a global leader in digital technology and development to make a bigger, faster and more cost-effective impact on the lives of the poor.

Digital technologies have the potential to change the lives of the poor, enable development and prosperity, and accelerate the process towards global goals. However, there are significant barriers to fully realizing the development potential of digital technologies. Not everyone in the world has access to the Internet, and there is a risk of being left behind in the transition to a digital world. The advantages of the Internet also come with new risks such as monopolies, growing inequality, and the use of digital technologies by states and businesses to control the citizens.

The UK intends to implement the following action plans to tackle global poverty and achieve global goals. First, the UK identifies best practices for using digital solutions in aid projects. And through the promotion of common principles and standards for digital development across the aid system, the UK is willing to help

1) In September 2020, the British Foreign and Commonwealth Office (FCO) and the Department for International Development (DFID) merged into the FCDO.

more digital products and services reach the poor, empower them and improve their lives. It also promotes affordable and secure Internet access in developing countries, enabling everyone to enjoy the benefits of digital technology.

3) Germany: Bundesministerium für wirtschaftlische Zusammenarbeit und Entwicklung (BMZ)

Germany announced the 'Digital Agenda of the BMZ' in 2018, emphasizing the use of the digital revolution to achieve sustainable development. 'Digital Agenda of the BMZ' contains Germany's operational strategy for modern development cooperation in a world undergoing digital transformation. It explains the contribution of the BMZ to the digital agenda of the German government and provides a framework of guidance for the implementation of digital initiatives.

The 'Digital Agenda of the BMZ' also explains how to capitalize on and address the challenges of digital transformation. Topics covered include climate, agriculture, education, business and economic development, displacement and migration. The five strategic goals of the 'Digital Agenda of the BMZ' include leveraging digital innovation, strengthening democratic processes, helping displaced people, creating future-oriented jobs, protecting human rights and ensuring participation.

Meanwhile, the BMZ is building and collaborating with companies and associations in the EU for digital cooperation, and mainly supports Africa. Major examples include digital center construction (accessibility), mobile payment system construction (economic), online vocational training (education), early response system for infectious diseases, drone-use remote drug supply (health and medical care), and ICT technology application (agriculture).

4) France: Agence Française de Développement (AFD)

AFD has published the 'Towards a World in Common: AFD Group 2018-2022 Strategy' in 2018 to meet the new challenges and goals of international development cooperation (AFD, 2018). This strategic guideline is intended to serve as a platform for accelerating global digital transformation and incorporating digital technology and culture into the mainstream.

Through this strategy, AFD has restructured the six transitions (social and demographics, energy, territory and ecosystems, digital technology, economy and

finance, and politics and civics) to achieve the SDGs in key areas. Among them, 'Digital and Technological Transition' focuses on digital infrastructure construction, institutional and capacity building support.

AFD aims to promote technologies that provide a French and European vision for the key social, ecological and economic issues (Cyber Security, Net Neutrality, Open Source Software, Privacy, Cultural Diversity and Environmental Protection) brought about by accelerated development cooperation methods, management of the social impacts of the digital revolution, and new digital technologies.

5) Japan: Japan International Cooperation Agency (JICA)

JICA proposes contributing to the achievement of SDGs through the active use of digital technology, fostering ICT talent, and strengthening the linkage with Japan's domestic ICT policies as basic policies for international development cooperation. In the ICT sector, JICA's development cooperation promotion strategy consists of four elements: improving ICT policy-making ability, developing human resources for ICT support, developing ICT infrastructure, and promoting ICT use and application.

This development strategy was implemented with specific measures such as publicity for ICT and dispatch of experts, support for ICT engineer training, establishment of broadband networks, education, industry promotion and provision of support for ICT use and application in areas such as disaster risk reduction. JICA is currently considering industry-based solutions, business support solutions and incubating solutions to further promote the use and application of digital technologies (〈Table 4〉).

〈Table 4〉 Utilization of digital technology in JICA's international development cooperation

Order	Agenda	Description
1	Industry-based solutions	Providing ICT services as a package to solve problems in developing countries by utilizing ICT solutions used in Japan and other countries.
2	Solutions for business activation	Proposal of the use of ICT services as a tool to further improve the efficiency of existing projects.
3	Solution incubating	Supporting the establishment of new businesses and services using ICT in developing countries.

Source: JICA Web page (2021).
Note: JICA, Japan International Cooperation Agency; ICT, Information and Communications Technology.

Meanwhile, Japan is actively promoting cooperation in the field of digital technology through cooperation with international organizations. In the field of cyber security, JICA is supporting issues' response and capacity building in the field through a consultative body between the Japanese government and ASEAN member states. Japan is also the largest donor of ADB's Asian Development Fund (ADF), which supports and cooperates actively in the digital technology field.

3. Cases of Achieving SDGs through Digital Technology

As such, the international community is making various efforts to achieve the SDGs. From multilateral donors such as ITU, WB, and ADB, to donor countries such as the United States, the United Kingdom, Germany, France and Japan, they are using digital technology to help ensure that no one is left behind (〈Table 5〉).

〈Table 5〉 Status of the use of digital technology by donors in the international community to achieve SDGs

Category	Infrast-ructure	Capa-city building	Institu-tion	Partn-ership	Finance	Entre-prene-urship	Infor-mation security	Health	Gender	Remark
ITU	●	●	●	●			●			Diversity, main-stream
WB	●	●		●	●	●	●	●		Data
ADB	●	●	●		●					
US		●		●	●	●	●	●	●	
UK	●			●		●	●	●		Data
Germany				●		●				Human rights
France	●	●	●				●			Diversity, climate change
Japan	●	●				●			●	Main-stream

Note: SDG, Sustainable Development Goals; ITU, International Telecommunications Union; WB, World Bank; ADB, Asia Development Bank.

Meanwhile, in 2019, the United Nations Conference on Trade and Development (UNCTAD) introduced major examples by linking the efforts of the international community with the detailed goals of SDGs.

First, the WB's 'Identification for Development (ID4D)' case was introduced as a best practice for achieving the end of poverty in all its forms everywhere (SDG 1), and through this initiative, an inclusive and reliable digital ID system was established. Thus, the foundation environment was created to provide economic opportunities to the most vulnerable.

The best practice to end hunger, achieve food security, achieve improved nutrition and achieve sustainable agriculture (SDG 2) is the FAO and ITU's '#HackAgainstHunger'. The project supports the transformation of young entrepreneurs' ideas into real impact by providing incubation and acceleration on innovative technology-based solutions that can contribute to ending hunger and achieving food security.

A good example of achieving healthy lives and promoting well-being for all ages (SDG 3) is the project of 'Kasha – Improving women's health in Rwanda (online platform)' implemented by the UK and Unliever. This project helped to overcome the problem of social stigma by allowing women to purchase the hygiene products they need online.

Achieving inclusive and equitable quality education and promoting lifelong learning opportunities for all (SDG 4) can be seen through Finland's 'ICT Education in Vietnam' project. This project promoted the connection between education and employment of students who completed higher education in the field of ICT.

A good example of achieving gender equality and the empowerment of all women and girls (SDG 5) can be seen in Finland's 'Digital Challenge 3rd edition – Innovation for Women in Africa'. This was supported by providing rewards to startups that contribute to improving gender equality and treatment of women in Africa.

A good example for achieving sustainable management and availability of water and sanitation for all (SDG 6) is Germany's 'MajiData – Database for Clean Water in Kenya to create'. Through this project, Germany supported the gradual improvement of water and sanitation services through increased transparency in Kenya's urban, low-income areas.

Best practices in achieving guaranteed access to affordable, reliable, sustainable and modern energy for all (SDG 7) can be found in the project of the AfDB, the WB, Sweden and the United States' 'Power Africa to Create'. The project doubled access to electricity in Africa over the next decade.

A good example of achieving the goals of sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all (SDG 8) is the project of the 'Decent Work for Youth using ICT' which was implemented by the EU and Germany. Through the project, the two donors strengthened the professional competence of young people in ICT-related occupations.

A good example of building resilient infrastructure, promoting inclusive and sustainable industrialization and achieving innovation (SDG 9) can be found in the project of 'The Eastern Africa Submarine Cable System', a collaboration between the AfDB, the WB, France and Germany. The project connected traffic from East and South African markets to Europe, Asia and the Americas via submarine cables.

An exemplary case for achieving domestic and inter-country inequality reduction (SDG 10) is Germany's 'Mobile communication for rural areas in India'. Through the project, Germany supported the construction of a wireless communication mast in the remote villages of India.

Best practices for achieving inclusive, safe, resilient and sustainable cities and dwellings (SDG 11) can be found in the project of 'Youthmappers (Nigeria)' implemented by the WB and the US. The project identified illegal waste dumping sites through GPS and photographic images, and provided a solution for urban waste.

Achieving guarantees of sustainable consumption and production modalities (SDG 12) is an example of the ITU's 'Support to e-Waste Management in Malawi'. Through the project, ITU supported the establishment of a policy and regulatory system such as a national strategy and action plan for e-waste management in Malawi.

Best practices for achieving an emergency response to combat climate change and its impacts (SDG 13) can be found in the Global System for Mobile communications Association (GSMA) and the UK's 'Mobile for Humanitarian Innovation'. Through this initiative, the UK and the GSMA have supported innovative solutions and partnerships in areas such as digital identity, mobile money, mobile-based energy, resilience to climate change and food security.

A good example of the conservation and sustainable use of oceans, seas and marine resources for sustainable development (SDG 14) is the UK's 'Global Challenges Research Fund, International Partnership Programme'. Through this project, the UK supported the enhancement of the sustainability of Indonesian fisheries, improvement of livelihood stability for fishermen, reduction of safety issues through improved connection lines, and reduction of environmentally destructive fishing methods.

An exemplary case for protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification, restoring cessation of land degradation, and achieving cessation of biodiversity loss (SDG 15) is Finland's 'Development of Management Information System for Forestry Sector in Vietnam'. Finland has supported Vietnam's forest resources management based on the latest information and poverty reduction measures in a sustainable way.

Meanwhile, UNCTAD's 'Automated Systems for Customs Data in 100 Developing Countries' is an example of promoting a peaceful and inclusive society for sustainable development, ensuring justice for all and achieving effective, accountable and inclusive institutions at all levels (SDG 16). The project improved and facilitated trade and customs procedures through automation, increased transparency and efficiency, and helped increase government customs revenues.

Finally, an exemplary case of strengthening the means of implementation and achieving the revitalization of global partnerships for sustainable development (SDG 17) can be found in Canada and the United Kingdom's project of the 'Information & Networks in Asia and Sub-Saharan Africa'. The project supported the production and sharing of high-quality, credible evidence of the impact of digital initiatives in the fields of governance, science, learning and entrepreneurship.

Ⅳ. THE WAY FORWARD

This study examines the role of digital technology in achieving the SDGs through examples of international organizations and major donors. The directions of development cooperation in the field of digital technology that can be derived through case analysis are presented as follows, with contents that everyone can

agree on at a certain level.

First, the vital task is to create a foundation environment for the realization of a digital ecosystem. In addition, regulations and systems need to be prepared so that the established digital environment can function properly, and national capabilities must be strengthened by enhancing digital literacy through education and developing high-quality human resources. Meanwhile, cooperation with various stakeholders is essential to respond to global challenges and trans-border issues. As entrepreneurship and innovation are required to strengthen the digital value chain, the focus should be on collaboration with the private sector.

In addition, it is necessary to apply ICT in all areas of development cooperation (Public Administration, Transportation, Education, Health and Sanitation, Energy, etc.), and to strengthen the planning and implementation of donor activities in consideration of the 17 goals of the SDGs continuously. In particular, considering the level of correlation between digital technology and the SDGs, it can be suggested to reinforce cooperation in sectors (Education, Health, Gender, etc.) that can perform better.

While COVID-19 has created an opportunity to accelerate the trend of transition to the digital economy in the international community, the support for data-driven digital solutions (Cloud, Internet of Things, AI, Information Security, etc.) is being emphasized in the field of development cooperation.

However, the core to proposing through this report is to build an open and secure universe for realizing and implementing all these suggestions. Given the relationship (threshold) between digital penetration and economic growth, some level of infrastructure is essential. In particular, it is important to establish an open and secure broadband network environment, and the principle of the support strategy is to promote private investment along with ODA support for partner countries.

In addition, it is necessary to consider how cooperation in the digital technology field can strengthen the digital value chain in the future. While looking at the development cooperation for digital technology based on Korea's ICT integrated classification system[2], it can be seen that the focus is on corresponding to the

2) In order to systematize the comprehensive scope of ICT statistics and to reconcile the conflicts between statistics, in 2017 MSIT decided to establish an integrated classification system for Korea's existing ICT statistics (18) and established the ICT statistical classification system.

equipment of ICT, software and digital contents. Considering that the key to building a digital ecosystem lies in strengthening the value chain, it is required to carefully consider the elements of the services of ICT in the process of cooperation.

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연구논문

키리바시 사우스타라와 현지 마을 지도자의 전염성 및 비전염성 질환 인식 개선: 위생인식 및 건강행태 설문조사와 반구조화된 심층면담 결과를 중심으로

이예진*
유기봉**
노진원***

요 약

키리바시는 기후변화로 인한 해수면 상승에서 기인한 식수 오염과 비위생적인 환경으로 인해 감염성 및 비감염성 질환의 유병률과 사망률이 모두 높은 '이중 부담(double burden)' 현상이 나타난다. 또한 키리바시는 작은 마을 단위의 모임 및 의견 공유가 매우 활발하여 마을 지도자의 의견이 의사결정의 큰 요인으로 작용하는 것으로 알려져 있다. 이에 본 연구는 키리바시 사우스타라와 현지 마을 지도자의 위생인식 및 건강행태를 진단하고 이를 통해 감염성 및 비감염성 질환의 개선 방안을 제시하는 것을 목적으로 한다. 사우스타라와 마을 지도자 7인과 키리바시 보건부 담당자 1인을 대상으로 위생인식 및 건강행태 설문을 각각 수행하고, 설문 응답 완료 후에 설문 내용에 대한 반구조화된 집단 면담을

* Main author: 고려대학교 일반대학원 보건학협동과정
** Co-author: 연세대학교 소프트웨어디지털헬스케어융합대학 보건행정학부
*** Corresponding author: 연세대학교 소프트웨어디지털헬스케어융합대학 보건행정학부 / jinwon.noh@gmail.com

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요 약

진행하였다. 손 씻기 및 이 닦기 등 위생 인식은 캠페인 및 정보 습득을 통해 개선되고 있지만, 실제 실천으로의 연결은 더딘 것으로 나타났다. 건강행태는 음주보다 흡연이 남성을 중심으로 만연한 것으로 나타났다. 기본적인 영양 지식은 존재하나 건강한 식이 실천은 부족하였으며, 신체 활동은 해안이 많은 지리적 특성상 수영을 중심으로 이루어지고 있는 것으로 나타났다. 설문 조사를 통해 나타난 낮은 위생실천과 부적절한 식이의 개선을 통해 키리바시 주민의 감염성 및 비감염성 질환을 개선하기 위한 보다 구체적인 프로그램 등의 개입이 요구된다.

주제어: 키리바시, 사우스타라와, 위생인식, 건강행태, 마을 지도자 설문조사

Ⅰ. 서론

키리바시(Kiribati)는 태평양 적도 근처에 위치한 저개발 도서국가로 33개의 산호섬으로 구성되어 있다. 키리바시는 해수면과 토지의 높이와의 차이가 거의 없어 기후변화에 따른 해수면 상승에 매우 취약하다(WPRO, 2011). 키리바시 산호섬의 일부는 해수면 상승으로 인해 이미 사라졌고, 기후변화로 인해 발생한 난민들이 피지의 북섬으로 이주하는 사태가 발생하고 있다.

키리바시 수도인 사우스타라와는 급격한 도시화가 이루어져 대부분의 관공서와 공항이 존재하는 허브이며, 2015년 기준 전체 주민의 51%인 56,388명이 거주하고 있다(National Statistics Office, 2016). 인구 밀도는 제곱킬로미터당 3,524명으로, 키리바시 내에서 인구 밀도가 가장 높은 곳일 뿐만 아니라, 전 세계적으로도 가장 인구밀도가 높은 곳 중 하나이다(SPC, 2003). 사우스타라와의 높은 인구 밀도는 감염병 유행에 특히 취약하게 하는 요인 중 하나로 작용하고 있다.

사우스타라와 자체가 해수면과 거의 비슷한 산호섬이기 때문에 기후변화로 인한 해수면 상승에 매우 취약하며, 지하수를 활용한 식수 공급에도 상당한 제약이 있다. 이에 대부분의 섬에 거주하는 인구가 사용할 지하수량이 부족하고, 해수면 상승으로 염수화되거나 비위생적인 환경으로 오염되어 있다(Republic of the Kiribati Island, 2012). 대부분의 가구가 빗물을 저장해서 사용하고 있지만, 지역주민들은 부족한 식수 공급, 불량한 개인위생, 부적절한 식품 관리 등의 복합적인 문제로 인해 높은 수준의 설사, 호흡기, 안과, 피부과 질환 등에 노출되어 있다.

키리바시는 감염성 질환뿐만 아니라 비감염성 질환의 유병률과 사망률이 모두 높은 국가이다. 2010년 상병 자료를 살펴보면, 감염성 질환이 가장 높았고, 호흡기 질환, 설사 질환, 안과 및 피부과 질환이 그 뒤를 이었다. 또한 5세 미만 사망률은 2015년 기준으로 1,000명당 56명이었으며, 영아 사망률은 2017년 기준으로는 태평양 지역에서 첫 번째로 높은 수준의 사망률(1,000건의 분만당 43명)을 보인다(Carter et al., 2016).

2017년 예측 기준으로 출생 시 기대수명은 남성은 63세, 여성은 70세 수준이다. 2006년에 세계보건기구에 의해 보고된 만성질환 위험요인 조사 결과에 따르면 25~64세 인구의 50.6%가 비만한 상태이며, 고혈압 유병률은 17.3%, 당뇨병 유병률은 28.1%, 고콜레스테롤혈증 유병률은 27.7%였다. 감염성 질환 중에서는 나병과 결핵이 가장 시급한 문제이며, 2017년 기준으로 결핵 신환자 발생률은 10만 명당 413명으로 인근 국가 중에서 가장 높으며, 한센병은 태평양 지역에서 유일하게 퇴치되지 않은 국가이다(WHO, 2018a; WPRO, 2009).

키리바시는 작은 마을 단위의 모임 및 의견 공유가 매우 활발하며, 국가적인 중요한 대소사는 마을 단위의 의견을 취합하여 결정하며, 특히 키리바시 마을 지도자의 의견이 의사결정의 큰 요인으로 작용하는 것으로 알려져 있다(Nunn, 2008). 이에 키리바시 의사결정의 주요 축으로 작용하는 현지 마을 지도자의 위생인식 및 건강행태를 조사할 필요가 있다. 이에 본 연구는 키리바시 사우스타라와 현지 마을 지도자의 위생인식 및 건강행태를 진단하고 이를 통해 감염성 및 비감염성 질환의 개선 방안을 제시하는 것을 목적으로 한다.

Ⅱ. 이론적 고찰

1. 키리바시의 보건의료 체계 및 인력

키리바시의 보건의료체계는 세금으로 운용되고 있으며, 92개의 보건소(health centre)와 진료소(dispensary)를 통해 전국에서 포괄적인 일차의료가 제공된다. 또한 사우스타라와에 있는 상급병원을 통해 이차적인 치료 서비스가 제공된다. 암의 진단 및 치료, 혈액 투석, 그 외 희귀병 등 보다 전문적인 진료가 필요한 경우에는 해외로 전원하기도 한다.

키리바시 정부는 키리바시의 주요 보건 서비스 제공 업체로, 정부 보건 시설은 4개의 병원(hospitals), 22개의 보건 센터(health centres), 83개의 마을 클리닉(village clinics)으로 구성된다. 중앙의뢰병원(central referral hospital)인 Tungaru Central Hospital(수도 타라와 소재)은 병원 및 보건 센터에서 추천서를 받아 환자를 수용한다. Betio(Tarawa), Kiritimati Island(Line 및 Phoenix Island 그룹), Tabiteuea North(Gilbert 아일랜드 남부)에 각각 세 개의 다른 의뢰 병원(referral hospital)이 있다. 병원은 보건 센터에서 추천을 받고 의사, 간호사 및 보건 직원이 운영한다(Taitai, 2001).

병원이 없는 농촌 외곽 섬에는 두 수준의 보건 시설이 있다. 먼저 보건센터(health centres)는 일차의료 및 예방 서비스를 제공하며, 의료 보조원(추가 교육을 수강한 등록 간호사)이 배치된다. 이 간호사는 각 섬의 주요 보건의료 인력이다. 보건 진료소(health clinics) 혹은 진료소(dispensaries)에는 지역사회 간호사와 간호사가 배치된다(Taitai, 2001).

키리바시는 태평양 지역의 다른 나라들과 비슷한 수준의 의료 인력을 보유하고 있다. 인구 1,000명당 의사 4명(2010년 기준), 간호사 19명, 조산사 72명, 산파 0.4명, 치과 의사 14명, 전문 의료진 14명 등으로 구성되어 있다. 그러나 보건 인력은 고령화되고 있으며, 일부 간호 및 의료 직무를 수행하기 위해 계약직으로 고용된 은퇴한 보건 직원에 의지하고 있는 실정이다. 훈련을 받지 않은 직원이 여러 분야에 참여하고 있으며, 효과적인 운영을 위한 직원이 부족한 상황이다. 또한 훈련받은 의료 종사자의 현재 수는 미래의 보건의료 요구사항을 충족시키지 못한다.

키리바시 대부분의 지역에는 의사가 없기 때문에 간호사는 모든 보건 분야 종사자의 약 70%를 차지하는 보건 인력의 중추이며, 간호의 범위가 다양하다. 태평양에 위치한 많은 다른 나라들과 마찬가지로 키리바시는 쿠바 의료재단의 수혜자이다. 쿠바의 상호 교환 프로그램은 키리바시 고등학교 졸업자가 쿠바에서 공부할 수 있도록 장학금을 제공하고 있다(Taitai, 2001).

2. 사우스타라와의 마을 종류 및 인구

사우스타라와 내 마을은 총 15개로, 각 마을의 인구는 최소 150명에서 최대 5,105명으로 구성되어 있다(Table 1).

〈Table 1〉 Population by village groups in South Tarawa (National Statistics Office, 2016)

Village	Total	Male	Female
Tanaea	198	103	95
Bonriki	2,829	1,411	1,418
Temwaiku	4,072	1,955	2,117
Causeway	1,843	859	984
Bikenibeu	7,575	3,515	4,060
Abarao	1,761	828	933
Eita	3,395	1,663	1,732
Tangintebu	150	61	89
Taborio	1,293	630	663
Ambo	2,780	1,337	1,443
Banraeaba	2,072	992	1,080
Antebuka	1,615	800	815
Teaoraereke	5,105	2,394	2,711
Nanikai	1,152	555	597
Bairiki	3,218	1,571	1,647

Ⅲ. 연구 방법

1. 조사 대상

키리바시는 작은 마을 단위의 모임 및 의견 공유가 매우 활발하며, 특히 키리바시 마을 지도자의 의견이 의사결정의 큰 요인으로 작용하는 것으로 알려져 있다(Nunn, 2008). 이에 본 연구는 사우스타라와 마을 지도자 7인과 키리바시 보건부(Ministry of Health and Medical Services, MHMS) 담당자 1인을 대상으로 하였다.

2. 조사 방법

본 연구는 사우스타라와의 마을 지도자의 위생인식 및 건강행태를 진단하기 위하여 개별적으로 위생인식 및 건강행태 설문을 각각 수행하고, 설문 응답 완료 후에 설문 내용에 대한 반구조화된 심층면담을 집단으로 진행하였다. 위생인식 설문지는 개인 청결 인식, 손 씻기, 양치 등에

대한 인식으로 구성되었다. 건강행태 설문지는 흡연 및 음주, 식이 및 영양, 신체활동으로 구성되었다. 모든 설문 문항은 영문 작성 및 교정하여 사용되었다.

반구조화된 심층면담의 질문은 위생인식에 대해 “키리바시의 위생인식에 대해 어떻게 생각하십니까? 키리바시 사람들의 위생 실천이 잘 이루어지고 있다고 생각하십니까? 그렇다면 그 이유는 무엇입니까?”와 같은 질문을 통해 진행되었다. 또한 건강상태에 대해 “키리바시의 흡연, 음주, 식이 및 영양, 신체활동에 대해 각각 어떻게 생각하십니까? 키리바시 사람들의 건강 행동이 잘 이루어지고 있다고 생각하십니까? 그렇다면 그 이유는 무엇입니까?”와 같은 질문을 통해 진행되었다. 조사자는 모든 디지털 녹음을 영어로 필사한 다음에 대본을 한국어로 번역하였으며, 정보가 잘못 해석되거나 누락되지 않았는지 확인하기 위해 녹음 결과를 비교하여 최종 결론을 도출하였다.

3. 통계 분석

본 연구에서 수집된 자료는 Microsoft Excel 2016을 이용하여 설문조사 결과에 대해 각 문항의 빈도, 백분율, 평균, 표준편차 등의 기술적 통계치를 분석하였다.

Ⅳ. 연구 결과

1. 연구대상자의 일반적 특성

연구대상자는 총 8명으로, 성별은 남성 5명, 여성 3명으로 구성되어 있다. 연령은 평균 44.9세이며, 거주기간은 평균 42.9년으로 나타나, 거의 평생을 현 마을에서 거주한 것으로 나타났다. 학교 입학은 8명 전원 입학한 것으로 나타났다(Table 2).

〈Table 2〉 General characteristics of subjects

Variables	Categories	N (%) / Means ± SD
Sex	Male	5 (62.5)
	Female	3 (37.5)
Age		44.9 ± 11.2
Resistance period		42.9 ± 13.1
School enrollment		8 (100.0)

2. 위생인식 설문조사 결과

위생인식 조사 결과, '스스로가 얼마나 깨끗하다고 생각하는가?'라는 질문에 평균 8.9점 정도로 매우 높은 수준의 응답이 나타났다. 손 씻기에 대해서는 항상 1명, 자주 1명, 가끔 6명으로 나타나, 전반적인 손 씻기 빈도는 부족한 것으로 나타났다. 반면, 식사 전 손 씻기는 항상 3명, 가끔 5명으로 나타나, 식사 전 손 씻기 빈도는 보다 양호한 것으로 나타났다.

비누 사용에 대한 문항을 살펴보면, 손을 씻을 때 사용은 항상 5명, 자주 1명, 가끔 2명으로 나타났고, 용변 후 사용은 항상 6명, 가끔 1명, 전혀 1명으로 나타났으며, 집 도착 후 사용은 항상 2명, 자주 1명, 가끔 3명, 절대 2명으로 나타났다. 이에 비누 사용이 상황별로 차이가 있는 것으로 나타났다. 이 닦기에 대해서는 항상 2명, 자주 6명으로 나타나, 이 닦기 빈도는 부족한 것으로 나타났다(Table 3).

〈Table 3〉 Survey results for hygiene awareness

Variables	Categories	N (%) / Means ± SD
How clean would you consider yourself?		8.9 ± 1.6
How many times a day do you wash your hands?	Always	1 (12.5)
	Frequently	1 (12.5)
	Sometimes	6 (75.0)
	Never	0 (0.0)
I wash my hands before eating food.	Always	3 (37.5)
	Frequently	0 (0.0)
	Sometimes	5 (62.5)
	Never	0 (0.0)
I use soap to wash my hands.	Always	5 (62.5)
	Frequently	1 (12.5)
	Sometimes	2 (25.0)
	Never	0 (0.0)
I wash my hands after using the toilet.	Always	6 (75.0)
	Frequently	0 (0.0)
	Sometimes	1 (12.5)
	Never	1 (12.5)

〈Table 3〉 Continued

Variables	Categories	N (%) / Means ± SD
I wash my hands as soon as I get home.	Always	2 (25.0)
	Frequently	1 (12.5)
	Sometimes	3 (37.5)
	Never	2 (25.0)
How many times a day do you brush your teeth?	Always	2 (25.0)
	Frequently	6 (75.0)
	Sometimes	0 (0.0)
	Never	0 (0.0)
I brush my teeth.	Always	3 (37.5)
	Frequently	5 (62.5)
	Sometimes	0 (0.0)
	Never	0 (0.0)

3. 위생인식에 대한 반구조화 면담 결과

설문 내용에 대한 집단 면담에서는 손위생 캠페인 등에 주민참여가 많이 이루어지고 있으며, 위생인식에 대한 정보 습득이 증가하게 되면서 전반적으로 키리바시 주민들의 손 씻기와 이 닦기 인식개선이 이루어지고 있는 것으로 나타났다. 그러나 인식의 개선과는 달리 실제적인 실천으로의 연결은 다소 더딘 것으로 나타났다.

4. 건강행태 설문조사 결과

먼저 흡연 및 음주 조사 결과, 흡연 여부에 대해 그렇다 4명, 그렇지 않다 4명으로 나타나 흡연 행태가 많이 이루어지고 있는 것으로 나타났다. 과거 흡연 기간은 1년, 6년, 25년 등의 다양한 응답이 발생하여, 흡연 기간의 편차는 큰 것으로 나타났다. 과거 금연은 '전혀 시도하지 않음', '시도하였으나 성공적이지 못함', '거의 1년' 등의 다양한 응답이 발생하여, 금연에 대한 인식이 존재하며, 일부 금연 노력이 이루어지는 것으로 나타났다.

음주 여부에 대해 그렇다 1명, 그렇지 않다 7명으로 나타나 음주 행태가 많이 이루어지지 않는 것으로 나타났다. 음주 빈도에 대해 직전 응답자는 '매달 정도'라고 응답하여 음주 빈도 역시 낮은 것으로 나타났다(Table 4).

〈Table 4〉 Survey results for smoking and drinking

Variables	Categories	N (%) / Means ± SD
Do you smoke cigarettes?	Yes	4 (50.0)
	No	4 (50.0)
In the past smoked, how long ago?		Last year, last year, six years
And how long ago you quit smoke?		Never, tried but not successful, almost a year
Do you drink alcohol?	Yes	1 (12.5)
	No	7 (87.5)
How often do you drink alcohol?	Every day	0 (0.0)
	Every week	0 (0.0)
	Every month	1 (12.5)
	Seldom	0 (0.0)
	Never	7 (87.5)

식이 및 영양 조사 결과, 구체적인 식사에 대해 그렇다 5명, 그렇지 않다 3명으로 나타났으며, 하루 끼니 빈도에 대해 3끼 이하가 1명, 3끼가 5명, 4~5끼가 2명으로 나타나 대부분 3끼 이상을 섭취하는 것으로 나타났다.

영양 기본지식에 대해 질문에 그렇다 5명, 그렇지 않다 3명으로 나타났으며, 탄수화물·단백질·지방 섭취 비율 도출 여부에 대해 그렇다 5명, 그렇지 않다 3명으로 나타나 영양에 대한 간단한 지식을 가지고 있는 것으로 나타났다. 영양제 섭취 여부에 대해 그렇다 1명, 그렇지 않다 7명으로 나타났으며, 과일·야채 섭취에 대해 그렇다 5명, 그렇지 않다 3명으로 나타났다(Table 5).

신체활동 조사 결과, 주중에 가용할 수 있는 시간에 대해 일주일에 1번 4명, 2주일에 1번 4명으로 나타났으며, 주말에 가용할 수 있는 시간에 대해 2~4시간 3명, 4시간 이상 5명으로 나타나 신체활동을 위한 어느 정도의 시간이 보장되는 것으로 나타났다. 자유시간의 활동에 대한 중복응답은 책/잡지 읽기 2건, TV 시청 3건, 컴퓨터 작업 1건, 음악 감상 3건, 사회적 만남 2건, 신체활동 1건, 없음 2건으로 나타났다. 자유시간의 신체활동 시도에 대해 그렇다 4건, 그렇지 않다 4건으로 나타났다(Table 6).

〈Table 5〉 Survey results for diet and nutrition

Variables	Categories	N (%) / Means ± SD
Do you eat regularly?	Yes	5 (62.5)
	No	3 (37.5)
How many meals do you eat a day?	Less than 3 times per day	1 (12.5)
	3 times per day	5 (62.5)
	4~5 times per day	2 (25.0)
Do you have any basic knowledge concerning proper nutrition?	Yes	5 (62.5)
	No	3 (37.5)
For the following three major component of food, can you estimate what percentage you would like to be in your daily diet?: Carbohydrate, protein, fat	Yes	5 (62.5)
	No	3 (37.5)
Do you take any other supplements or pharmacologists' substances?	Yes	1 (12.5)
	No	7 (87.5)
Do you eat fruit and vegetables everyday?	Yes	5 (62.5)
	No	3 (37.5)

〈Table 6〉 Survey results for physical activity

Variables	Categories	N (%) / Means ± SD
How much free time do you have in a weekday?	Ones a week and more	4 (50.0)
	Ones in two week	4 (50.0)
	Onces a month	0 (0.0)
	Rather seldom	0 (0.0)
How much free time per day do you have at weekend?	I don't have any	0 (0.0)
	1 hour	0 (0.0)
	2~4 hours	3 (37.5)
	More than 4 hours	5 (62.5)
What kind of activities do you do in your free time (besides martial arts training)? *(Multiple response)*	Reading books/magazines	2 (25.0)
	Watching TV	3 (37.5)
	Computer work	1 (12.5)
	Listening to music	3 (37.5)
	Social meetings	2 (25.0)
	Physical activity	1 (12.5)
	No activity	2 (25.0)
Do you undertake physical activity willingly in your free time (both martial arts and other kinds of activity)?	Yes	4 (50.0)
	No	4 (50.0)

5. 건강행태에 대한 반구조화 면담 결과

설문 내용에 대한 집단 면담에서는 음주보다는 흡연에 대해 보다 관대하며, 특히 마을 전반적으로 여성보다 남성의 흡연이 높다는 응답이 제시되었다. 또한 흡연의 유해성에 대해 전반적으로 어느 정도 인지하고 있으나, 실제 건강을 위해 금연을 시도하는 경우는 흔치 않은 것으로 나타났다.

대부분 튀긴 음식이나 기름진 음식을 섭취하고 있으며, 건강을 위해 보다 건강한 음식을 섭취하려는 인식이 매우 부족한 것으로 나타났다. 탄수화물, 단백질, 지방의 섭취 정도를 가늠할 수 있으나, 주로 지방에 높은 비율이 쏠려 있어 균형적인 식사 행태를 가진 주민들은 매우 적다는 것을 확인하였다. 영양제를 섭취한다고 응답한 1인의 경우 비타민을 섭취하는 것으로 응답하였다. 그러나 키리바시에서는 영양제 섭취가 거의 없다고 하여도 무방하다고 하였으며, 아주 소수의 마을 지도자들이 비타민 정제를 섭취하는 경우가 있는 것으로 나타났다.

건강을 위해 신체활동을 해야 한다는 인식은 존재하는 것으로 나타났으며, 생업 외의 신체활동은 해안이 많은 지리적 특성상 주로 수영이 주를 이루는 것으로 나타났다.

V. 결론

본 연구는 키리바시 사우스타라와 현지 마을 지도자의 위생인식 및 건강행태를 진단하고 이를 통해 감염성 및 비감염성 질환의 개선 방안을 제시하는 것을 목적으로 한다. 이에 마을 지도자의 위생인식 및 건강행태에 대한 설문조사를 수행하였으며, 설문조사 결과에 대한 반구조화된 심층면담을 통해 마을 내의 정성적인 질병 발생 원인을 탐구하고자 설계하였다.

키리바시는 여러 개발도상국 국가들처럼 감염성 질환이 매우 다발하지만, 동시에 비감염성 질환이 역시 다발하는 '이중 부담(double burden)' 현상이 나타나고 있다(WPRO, 2009). 이는 서태평양 섬 국가에서 공통적으로 나타나는 현상으로, 특히 당뇨병과 같은 질환은 서태평양 지역 3천만 명에게 영향을 미치고 향후 20년 동안 두 배로 늘어날 것으로 예상되고 있는 중요한 건강문제 중 하나이다(WHO, 2001). 2019년 국가별 1만 명당 장애보정손실수명(The disability-adjusted life-year, DALY)을 도출한 결과, 키리바시의 사망 및 장애 원인 기여도가 높은 질환은 당뇨병, 허혈성 심장질환, 뇌졸중 순으로 나타났다(GBD 2019 Diseases and Injuries Collaborators, 2020). 이러한 건강 결과에 기여하는 고유한 개인행동을 결정하는 요인을 식별하고(Hansen, 2001), 위험한 행동을 제거하고 건강한 행동에 기여할 수 있도록 장려하는 교육 프로그램을 개발하는 것이 매우 중요하다(Orleans et al., 1999).

먼저 위생인식 조사 결과, 손 씻기 및 이 닦기 등에 대한 인식은 캠페인 및 정보 습득을 통해 개선되고 있지만, 실제 실천으로의 연결은 더딘 것으로 나타났다. 서태평양 도서국가의 건강증

진 행동에 대한 선행연구에서 키리바시는 피지 등의 국가에 비해 건강을 유지하려는 동기가 낮은 것으로 나타났다(Szmedra et al., 2007). 또 다른 호주 연구 결과에서 키리바시 사우스타라와는 위생 관련 이니셔티브가 생성되어 있고, 'Global Handwashing Day' 행사 등을 통해 위생에 대한 긍정적인 인식은 보편적으로 존재하는 것으로 평가하였다. 그러나 도구, 지식 및 자금의 부족으로 다음 단계로 나가고 있지 못하는 것으로 분석하고 있다(GHD, 2015). 또한 많은 프로젝트들이 커뮤니티 그룹에 빗물탱크와 같은 인프라 시설의 구축에만 집중하고 있으며, 키리바시 커뮤니티 속으로 들어가려는 노력을 하지 않는 것을 문제점으로 지적하고 있다(GHD, 2015). 이에 감염성 질환의 개선을 위하여 위생 인식 개선이 아닌 위생 실천을 직접적으로 수행할 수 있는 프로그램의 개발 및 수행이 요구된다.

건강행태 조사 결과, 음주보다 흡연이 남성을 중심으로 만연한 것으로 나타났다. 실제로 2016년 키리바시의 15세 이상 흡연률은 47.0%로, 2013년 51.2%, 2014년 49.8%, 2015년 48.3%에 비해 감소하고 있으나, 여전히 매우 높은 수준이다(World Bank, 2017). 이를 개선하기 위해 WHO FCTC(Framework Convention on Tobacco Control)의 도입을 통한 적극적인 흡연율 감소 개입이 요구된다(Republic of the Kiribati Island, 2012). 음주는 키리바시에서는 낮게 나타났지만, 태평양 국가에서 교통사고 발생 비율이 증가하는 주요 원인으로 나타나므로 개선이 필요한 요인이다(World Bank, 2012).

건강행태 조사 결과, 기본적인 영양 지식은 존재하나 건강한 식이 실천은 부족한 것으로 나타났으며, 신체활동은 해안이 많은 지리적 특성 상 수영을 중심으로 이루어지고 있는 것으로 나타났다. 실제로 키리바시의 대부분은 산호섬이고, 지면이 염수화되어 농경이 어렵기 때문에 가공식품 및 튀김의 섭취가 높아 균형 있는 식단 구성이 어려운 실정이다(WHO, 2018b). 태평양섬 인구들에게 지방 저장에 대한 유전적 소인과, 전통적인 식단에서 포화 지방과 설탕이 많은 현대식 제조식품으로의 식습관 변화는 태평양 국가의 건강행동 개선 프로그램의 긍정적 영향을 상쇄하는 주요 원인이며(Coyne, 2000), 이로 인해 발생하는 비만은 태평양 지역 사람들이 경험하는 비감염성 질환(Non-communicable disease, NCD)에 가장 높게 기여하는 요인 중 하나이다(SPC, 2003). 이에 비감염성 질환의 개선을 위하여 WHO는 차야 등 영양이 풍부한 녹색 잎이 많은 식물을 태평양 섬들에서 재배할 수 있도록 장기간 지원하고 있다(WHO, 2018b). 그러나 키리바시 주민들이 균형 높은 식이를 수행할 수 있는 프로그램의 개발 및 수행, 과일과 야채에 대한 접근성 향상, 건강한 음식 섭취를 보장하는 정책의 개발 등의 노력이 여전히 필요한 실정이다(Republic of the Kiribati Island, 2012).

이외에도 키리바시의 비감염성 질환을 개선하기 위한 방안으로는 국가 의료기관 내 자원 공급, 만성질환의 조기 발견 및 관리를 가능하게 하는 건강 시스템의 개발, 비감염성질환 전략 개발 및 모니터링과 이를 지원할 수 있는 인프라 구축을 위한 지속가능한 재정 체계 마련 등이 필요하다(Republic of the Kiribati Island, 2012).

또한 키리바시의 사회적 맥락을 반영한 의료정보시스템 및 환경보건모니터링시스템이 필요할 것으로 판단된다. 특히 키리바시에 적합한 환경보건 관련 정보를 수집, 관리, 생산, 배포 및 활용할 수 있는 정보체계를 개발하고, 생성된 관리 지표 개발을 통해 환경오염, 기후 변화와 관련된 건강 변화들에 대한 모니터링이 가능한 환경을 마련하는 것이 요구된다. 더 나아가, 지역사회 차원에서 지역주민들의 자발적인 참여와 정보 활용 능력 향상을 도모하는 것이 필요하다. 이는 기초 보건정보의 접근성이 취약하고, 환경적 피해가 다발하는 점을 보완할 수 있을 것으로 기대된다. 또한 향후 키리바시 보건부 환경보건국에 환경보건 지표에 기반한 정보관리 프로그램을 공급하고, 환경보건 담당자들을 대상으로 한 역량 강화 프로그램 실시를 통해 개발된 체계 및 관리 지표들의 활용 가능성을 증대하여 지속가능한 환경보건체계를 구축하는 것이 필요하다(한국국제협력단, 2018).

본 연구에는 몇 가지 한계점이 존재한다. 첫째, 사우스타라와 내 15개 마을의 지도자를 모두 조사하고자 하였으나, 응답에 응한 조사 대상자가 적어 7명의 마을 지도자를 대상으로 수행되었다. 이에 후속 연구에서는 전체 마을지도자를 대상으로 한 연구가 진행될 필요가 있다. 둘째, 마을지도자가 영어를 구사하나, 구사 정도가 높지 않아 설문 문항 및 응답을 이해 가능한 수준으로 간단하게 구성할 수밖에 없는 여건이 존재하였다. 이에 후속 연구에서는 키리바시 현지어를 이용하여 보다 심도 깊은 문항 구성을 통해 결과를 도출할 필요가 있다.

그럼에도 본 연구는 키리바시 사우스타라와의 마을 지도자를 대상으로 위생인식 및 건강행태에 대해 국내에서 처음으로 수행 및 보고된 결과라는 점에서 의의가 있다. 설문 조사를 통해 나타난 낮은 위생실천과 부적절한 식이 개선을 통해 키리바시 주민의 감염성 및 비감염성 질환을 개선하기 위한 보다 구체적인 프로그램 등의 개입이 요구된다.

사사

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Improvement of Communicable and Non-Communicable Disease Awareness in South Tarawa, Kiribati: Survey Results on the Hygiene Awareness and Health Behaviors of Local Village Leaders

Yejin Lee (Ph.D. Student in Department of Public Health, Graduate School, Korea University)
Ki-Bong Yoo (Assistant Professor, Division of Health Administration, College of Software and Digital Healthcare Convergence, Yonsei University)
Jin-Won Noh (Associate Professor, Division of Health Administration, College of Software and Digital Healthcare Convergence, Yonsei University)

Abstract

Climate change and sea-level rise have caused drinking water pollution and an unsanitary environment, leading to a high prevalence mortality and rate of both communicable and non-communicable diseases. This study examines the hygiene awareness and health behaviors of local village leaders and attempts to improve the awareness of infectious and non-infectious diseases in South Tarawa, Kiribati. Hygiene awareness drives and health behavior questionnaires surveys were conducted, followed by semi-structured group interviews for South Tarawa village leaders. Hygiene awareness has been improved through campaigns and information acquisition, but the actual practice rates were low. The health behavior survey showed that smoking, rather than drinking, was more prevalent among men. Although basic nutritional knowledge existed, healthy diet practice was insufficient, and the most popular physical activity was swimming due to the coastal location. More specific programs are required to improve communicable and non-communicable disease awareness, resulting from poor hygiene and inappropriate dietary practices of Kiribati residents.

Key words: Kiribati, South Tarawa, Hygiene Awareness, Health Behaviors, Survey of Local Village Leaders

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Original Article

Effect of Parental Education on Child's Schooling: A Case Study on Malawi's Primary and Secondary School Children

Soojung Chun*

Abstract

A majority of prior studies have substantiated the intergenerational effects of maternal education on children, but study on the impact of paternal education on children's educational achievements is limited. The purpose of this study is to examine the role of paternal education in children's schooling based on the student's gender, parents' gender, and education level. The panel probit model is applied to the analysis based on World Bank's Integrated Household Panel Survey. The estimated results illustrate that there is a positive correlation between the parents' education level and children's literacy. Specifically, a higher likelihood of children's literacy is associated with paternal

* **Corresponding author:** Student, Master's Course, Korea University / Crystal2013260356@gmail.com

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Abstract

education than maternal education; fathers who had a university degree had more impact on their children's literacy. There is a high probability of paternal education transmission to the daughter than the son. Parental education has a significant impact on children in the short and medium terms. The implication of these findings is that paternal education can be used as a suitable proxy for measuring children's educational achievements in Malawi.

Key words: Developing Countries, International Education, Education Development, Parental Characteristics, Sub-Saharan Africa

Ⅰ. INTRODUCTION

Parental characteristics are the main factor behind the students' positive educational achievements. They play an important role in determining children's access to school and their academic achievement (Necşoi et al., 2013). Parents are the main decision actors that directly affect children's school enrollment and the total education period. Sending children to school is an important decision for poor households because of the financial trade-off between financial interests vis a vis child labor. Without their family's permission and support, it is difficult for children to attend school and this tendency is prevalent in developing countries in Africa, which children are regarded as part of the labor force (Lloyd & Blanc, 1996). Among the family characteristics, the education level of parents influences children's education achievement significantly more than other family demographic characteristics. Educated parents interact with their children better than low educated parents and they understand how to organize their home environment appropriately. These things indirectly affect children's literacy ability, cognitive development and academic-oriented behavior, and influence academic success when they enter school (Davis-Kean, 2005). Not just academic achievement, parents' years in education affect children's characteristics that give them a strong desire to accomplish their aims. This achievement-oriented behavior leads them to perform better in school and after graduation. Consequently, educational achievement provides an opportunity to get a good occupation and it improves their social status.

Prior research generally confirmed that maternal education can be the standard for social economic status in developing countries (Abuya et al., 2018; Amuda & Ali, 2016). The main reason is that it is assumed that mother's educational achievement reflects women's high social and economic status (Sen & Clemente, 2010). Women's educational achievement generally results to intergenerational effects on their children (Akareem & Hossain, 2016).

Compared to maternal education, the controversy regarding confirmation of paternal education on child schooling has raged unabated for many decades. Recently, the importance of paternal education has been increasing public interest related to children's development (Schlechter & Milevsky, 2010). Especially in

Sub-Saharan Africa, paternal education can be affected to their children much more than maternal education, regarding that the main body of decisions about household earnings is made by the household head. The majority of African countries are patriarchal societies which male household head is prevalent. Father has a strong influence on their children whether to send children to school or not. Even if the mother's educational achievement is high and they understand the importance of education, father decide their children's education with his economic resources (Booth, 2003; Timaeus & Boler, 2007). In this context, paternal education can be a more appropriate proxy to determine pupils' educational achievement and access. There are some unobserved factors between paternal education and child schooling which cannot be grasped by mother's educational achievement regarding Africa's cultural backgrounds.

Many empirical studies already examined the effectiveness of mother's education level on children's schooling outcome. However, the relationship between father's education level and children's academic performance is controversial in the development field. In terms of the positive argument, a handful of research has argued that a father's education level positively affects children's access to school in higher education (Nyarko, 2011; Schlechter & Milevsky, 2010). For the counter argument, studies have found that a mother's education level has a more significant influence to children's academic achievement compared to fathers education (Eamon, 2005). A Mother's education has a positive effect when children are young (Andrabi et al., 2012). There is clear evidence for the effectiveness of the mechanism of maternal education and child schooling for primary and secondary aged children. However, there is little research examining the positive affect between a father's education level and children's academic achievement in higher education cases.

Traditionally, the parents' role has been considered as the important factor that can enhance the educational achievements of children. They play such a critical role in educating children, by affecting them physically and mentally. Moreover, parents control the decision whether to send their children to school, so understanding intrinsic parental background is prerequisite to education development (Harding et al., 2015).

Considering this concept, this study focuses on parental education which is the most basic attribute among parent's background. It is based on the rationale that

the mechanism of mother and father to their children is different for their children (Hill et al., 2016). In particular, little is known about relationship between father's educational attainment and children's educational outcomes in Sub-Saharan Africa. By determining the influential factors on primary and secondary aged children in Malawi, this study will examine the effectiveness of family characteristics on children's development. First, this research will analyze the paternal education level and primary and secondary-aged children's attendance by student's gender, period, and parents' gender. Second, this research will analyze the effectiveness of paternal education level on primary and secondary school aged children's literacy by student's gender, period, and parents' gender. By identifying the relationship between parental educational achievement and children's educational outcome in the context of Malawi, this research provides insights into the effects of family characteristic on economic contribution to their children in the context of Africa.

II. LITERATURE REVIEW

This chapter reviews existing empirical studies to identify major factors that are bound up with parents' educational investment and child schooling. To examine how paternal education and maternal education are linked to their children's education, this study assumes several figures that have the possibility of influencing children's educational outcomes.

1. Parental Characteristics and Education Investment

Parental investment is an important factor of driving success in education. Parents are the most important determinants that can directly influence children's educational attainments. They are the main decision makers of whether send their children to the school or not. Prior research generally confirms that educational investment can be decided by socio-economic status (SES). Among SES, parents' education level is one of important components to drive investment in education (Huisman & Smits, 2009). Parents who achieve high educational attainment understand the importance of the education compared to low-educated parents. The main reason for parental investment is strong aspiration for their children's

wellbeing. They believe that success can be achieved through education and try to provide the opportunity to obtain education (Howie et al., 2017). With parents' economic and emotional support, this parental characteristic can result in academic achievement. It is not surprising that students' who have well-educated parents show better academic performance and high attendance rates than students who have low-educated parents (Deslandes et al., 1999; Farooq et al., 2011; Krashen, 2005).

In that aspects of economic interpretation, parents' education investment operates differently depending on the parents' gender. Several studies agree that in some countries, where male-headed households are prevalent and gender disparities are large, male-headed households play an important role in sending their children to school (Shahidul, 2013; Timaeus & Boler, 2007). Even where a mother's education level is high, she may not have the decision making power to invest in an school. In this specific local characteristic, a father's education can be an important index in SES of family characteristics (Moyi, 2010).

Parental decision to investment in their children is prerequisite for access to school and to achieve academic skills. In terms of parents' aspiration has affected children's educational achievement, and this tendency has grown in accordance with parents' educational achievement.

Previous research substantiates the belief that there are significant differences between mothers and fathers. The mechanism of paternal education and maternal education in child schooling is different. It assumed that this difference is due to which parent has the right of spending economic resources of household and this is imperative to determine parents' decision to investment in education. In cultures, males where have the dominant decision powers, well- educated mothers do not affect their children's access to school and the father's education level should be a key factor to determine the children's educational outcomes. Based on prior empirical research, this study will examine the linkage between parental education and child schooling focused on paternal education (Hossain, 2018).

2. Factors Determining Educational Investment and Child Schooling

This study considers several factors influencing educational investment and child schooling based on the household context. Previous studies have proven that there

are several factors that have draw consequences for child schooling.

At an individual level, age and gender are the main components connected with parental education investment and children's schooling outcome. Older children's opportunities of attending school are higher than younger ones in same households (Takeda & Lamichhane, 2018) Regarding aspects of gender, male students have more chance to go to the school. Students' gender should be considered together with household characteristics like parental education level. Most of the previous literature suggests that where parents and pupils are the same gender, it results in positive impacts. Father's education has more impact on boys (Ming, 2010) and mother's education is more associated with girl's education (Huisman & Smits, 2009). Notably, the consensus has been that mothers strongly affect girls educational achievement. From the perspective of increasing enrollment of girls, mothers play an important role (Emerson & Souza, 2007). Considering the unique context of the African regions, gender is an important determinant to access school. Research pointed out that in patriarchal social systems like the African regions, parents prefer sending their sons to school. Compared to the opportunity cost of sending their children to school, parents might think there is more advantages sending their sons to school. Boys are more likely get good occupations in these societies. Parents think that if they educate their girls, the benefits will go to daughter's husband's family, so there is little motivation to educate girls. Due to this bias, expected returns of rates from girls' education is lower than from boys in the view of the parents (Gibson & Lawson, 2011; Gibson & Sear, 2010; Olaniyan, 2011).

Of the family characteristics, research suggests household welfare and household size are decisive of educational investment and schooling. Household welfare has been argued as important in the background of parents' decision. Welfare is the main instrumental measurement of household's economic status. Literature generally confirms poor households cannot care about children's education. The biggest problem households' face is to put bread on the table, not education. Family's who earn higher SES tends to spend more money on education (Abbam, 2018; Mingat, 2007).

In addition, bigger household size is negatively associated with children's schooling. Children who live in large households might lose the chance to get an education for financial reasons (Cheng, 2009).

III. METHODOLOGY

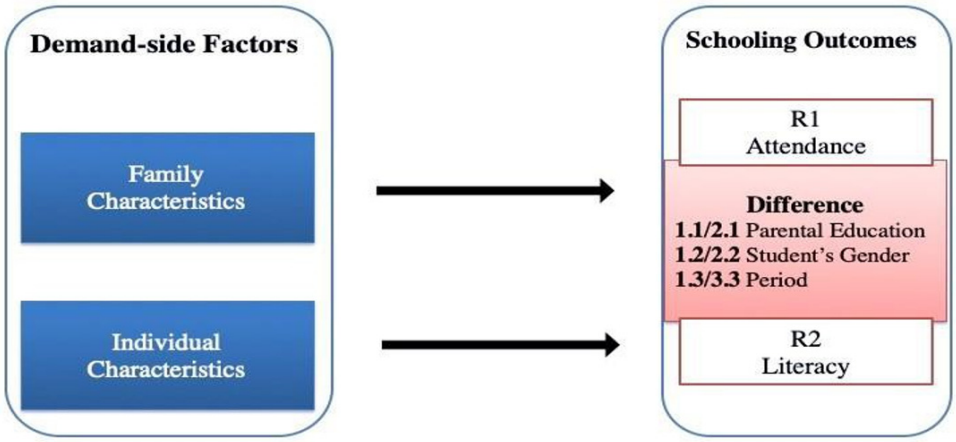
1. Data and Hypothesis

This research is designed to determine relevant parents' educational achievement and schooling outcomes. A number of researchers have reported that school attendance and literacy are the main dependent variables that can detect households' decision to educational investment (Nguon, 2012).

Based on the literature review, there are two dependent variables to measure schooling outcomes. School attendance is used to detect access to education, and literacy is adopted to evaluate students' academic achievements. To put it concretely, this study investigates these factors by students' gender, parents' gender, and a period. Autonomous variable is individual characteristics and family characteristics who are main performer of the education process. 〈Figure 1〉 is an analytical framework of factors that have the possibility of affecting children's schooling outcomes.

Previous studies have proven that parents' education is affirmatively associated with their children's education. It has a larger effect where parents' gender and pupil's gender is the same. Abuya et al. (2018) investigated years of maternal education at the secondary level, girls have higher academic achievement and

〈Figure 1〉 Analytical framework of characteristics influencing pupils' educational outcomes



Source: Created by Author based on Sánchez & Singh (2018).

cognitive development. Of those mothers and fathers, mother directly affects their children, but several prior literatures proved paternal education has more impact on African regions in orphan studies. Zhao et al. (2010) argued that paternal orphans show develop more trust with caregivers than maternal orphans. In addition, Dubow et al. (2009) demonstrated parental education contributes to children's educational success in the long term indirectly. On the basis of previous empirical studies, this study investigates two hypothesis.

1) Fathers' education level positively influences primary and secondary-aged children's school attendance in Malawi.

To be specifically, the hypothesis is, fathers' education level affects positively male and female students, in both the short-term and medium-term. However, it has a larger effect on male students and in a medium-term. In comparison with maternal education, paternal education strongly associated with children's schooling results. This hypothesis is based on Sánchez & Singh (2018) that represented students' gender, parents' gender is significantly affecting access to the school and this tendency is maintained long-term periods.

2) Fathers' education level positively influences on primary and secondary-aged children's literacy.

The hypothesis is fathers' education level affects positively both male and female students, in both short-term and medium-term. However, It has a larger effect on male students and in a medium-term. In comparison with maternal education, paternal education is strongly associated with children's literacy. This hypothesis is based on Sánchez & Singh (2018) found parental education can be directly influenced short-term, medium-term period and indirectly to the long-term period to students' educational achievements. The researcher investigated that students' gender, parents' gender is significantly affecting children's academic achievements.

2. Model

The probit model was employed to analyze the probability of primary and secondary-aged children's schooling outcomes in the form of attendance and

literacy. This regression is applied to the study taking into account fact that the dependent variable is binary. Binary indicators are represented as Yi and are linked to unobserved dependent variables which are represented by Y_i^*. The probit model has Standard Normal Cumulative distribution function $\Phi(Z)$ and indicates binomial probabilities as follows: Pr (Y_i = 1) if Pr ($Y^* > 0$) = $\Phi(x^TB)$ and Pr (Y_i = 0) if Pr ($Y^* \leq 0$) = $\Phi(x^TB)$. Based on this, Model (1), (2) is intended to detect the results of i.

children's attendance to substantiate the first hypothesis.

$$\Pr(Attendance\ 2013_{ij} = 1|X) = \Phi(\alpha_{ij} + X'_{ij}\ \beta_j) \quad (1)$$

$$\Pr(Attendance\ 2016_{ij} = 1|X) = \Phi(\alpha_{ij} + X'_{ij}\beta_j) \quad (2)$$

Attendance 2013_{ij} is the school attendance of individual i in household j where the baseline is 2010 and endline is 2013. It is assessed by attending status in primary or secondary school in 2013. *Attendance* 2016_{ij} is the school attendance of 2016 year that individual i in household j where the baseline is 2013 and end line is 2016. Attending status of primary or secondary school in 2016 is criteria of this variable. X'_{ij} consists of vectors observable variables (that consists of year of fathers' education, year of mothers' education, age, household size, household welfare, student's gender, and student's educational level).

Model (3), (4) is designed for demonstrating the results of children's literacy to investigate the second hypothesis.

$$\Pr(Literacy\ 2013_{ij} = 1|X) = \Phi(\alpha_{ij} + X'_{ij}\beta_j) \quad (3)$$

$$\Pr(Literacy\ 2016_{ij} = 1|X) = \Phi(\alpha_{ij} + X'_{ij}\beta_j) \quad (4)$$

Literacy 2013_{ij} is the language ability of individual i in household j where the baseline is 2010 and endline is 2013. It is made based on the children's reading and writing ability of Chichewa or English from 2010 to 2013. *Literacy* 2016_{ij} is the language ability of individual i in household j where the base-line is 2013 and endline is 2016. It is designed for children's reading and writing ability of Chichewa or English in 2016. X'_{ij} consists of vectors observable variables that

consist of year of fathers' education, year of mothers' education, age, household size, household welfare, student's gender, and student's educational level.

The dependent variable is attendance and literacy. To measure the short-term and medium-term effects, each variable is measured twice by period. Attendance 2013 and Literacy 2013 variables show the result of short-term effects where both baseline is 2010 and endline is 2013. Attendance 2016 and Literacy 2016 variables are designed to evaluate medium-term effects that baseline is 2013 and endline is 2016 years. Household welfare is calculated by the total amount of annual non-durable expenditure to measure the household's SES. 〈Table 1〉 is a detailed variable explanation that is used in the study.

〈Table 1〉 List of variable definition

Variable	Definition of variables
Dependent variables	
Attendance 2013	Binary variable taking 1 if the child attends the school or 0 otherwise (Baseline is 2010 and endline is 2013).
Attendance 2016	Binary variable taking 1 if the child attends the school or 0 otherwise (Baseline is 2013 and endline is 2016).
Literacy 2013	Binary variable, taking 1 if the child can read Chichewa or English, 0 otherwise (Baseline is 2010 and endline is 2013).
Literacy 2016	Binary variable taking 1 if the child can read Chichewa or English, 0 otherwise (Baseline is in 2013 and endline is in 2016).
Family characteristics	
Maternal education	Mothers' education level.
Paternal education	Fathers' education level.
Household size	Household size.
Household welfare	Annual household consumption in MK.
Individual characteristics	
Age	Official primary-age (6-14) and secondary age (15-18).
Primary student	Dummy variable taking 1 if the child is primary-aged, or 0 otherwise.
Girl	Dummy variable, taking 1 if the child is female or 0 otherwise.

Source: Created by Author based on IHPS Data (2018).
IHPS, Integrated Household Panel Survey.

3. Data Source

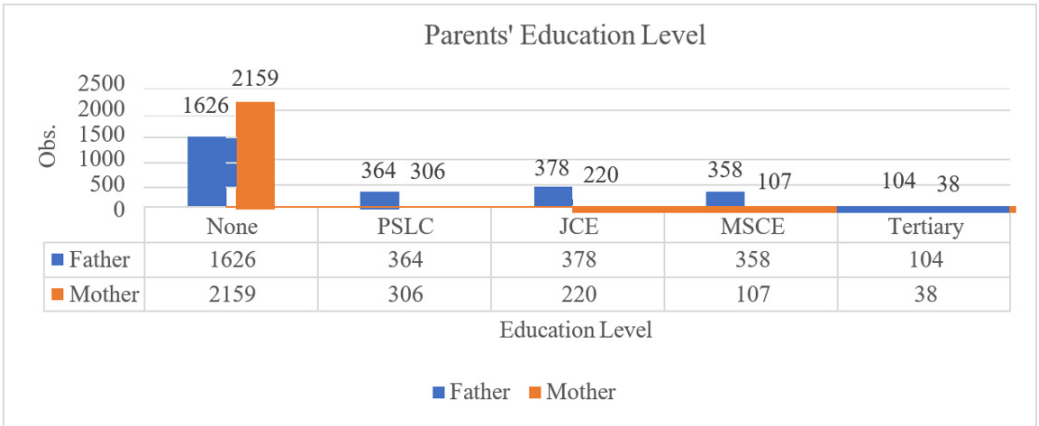
This study uses data from the Integrated Household Panel Survey (IHPS) 2010-2013-2016 (Long-Term Panel, 102 EAs) from the World Bank. Data were collected by the National Statistical Office (NSO) in the Ministry of Economic Planning and Development (MoEPD). It is funded by the Government of Malawi (GoM), The World Bank Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA), and Millennium Challenge Corporation (MCC). Data collection started in 2010 and ended in 2016. The Integrated Household Survey 2010 is baseline of the survey and data were resurveyed in 2013 and again in 2016. IHPS is midline and IHPS is the endline of the survey.

This study targets official primary-aged children, from 6 to14 and official secondary-aged children, from 15 to 18 which can be tracked in the 2010, 2013, and 2016 periods. 〈Figure 2〉 illustrates the sample size by student's education level and 〈Table 2〉 shows the summary statistics.

The total sample size is 2,830 of which 2,249 are primary-aged and 581 are secondary- aged children. Sample of primary-aged children are more than three times the number of the secondary-aged children. Considering the ratio of males and females, girl and boy had similar ratios. 1,402 are female and 1,428 are male students.

Mother and fathers' year in education is shown in 〈Figure 2〉. The majority of

〈Figure 2〉 Distribution of parents' education level



Source: Created by Author based on IHPS Data (2018).
JCE, lower secondary; MSCE, upper secondary; IHPS, integrated household panel survey.

〈Table 2〉 Summary statistics

Sample 1 (from 2013 to 2016)					Sample 2 (from 2013 to 2016)				
Variable	Mean	Std. Dev.	Min.	Max.	Variable	Mean	Std. Dev.	Min.	Max.
Dependent variable					**Dependent variable**				
Attendance 2013	0.941127	0.235486	0	1	Attendance 2013	0.937233	0.242617	0	1
Attendance 2016	0.980656	0.137789	0	1	Attendance 2016	0.973187	0.161586	0	1
Literacy 2013	0.504626	0.500189	0	1	Literacy 2013	0.52529	0.499512	0	1
Literacy 2016	0.754416	0.430614	0	1	Literacy 2016	0.740402	0.438548	0	1
Family characteristics					**Family characteristics**				
Paternal education					*Paternal education*				
PSLC	0.126156	0.332165	0	1	PSLC	0.130408	0.336855	0	1
JCE	0.117746	0.322443	0	1	JCE	0.145034	0.352242	0	1
MSCE	0.141295	0.348472	0	1	MSCE	0.115783	0.320062	0	1
Tertiary	0.033642	0.180381	0	1	Tertiary	0.039001	0.193655	0	1
Maternal education					*Maternal education*				
PSLC	0.10513	0.30685	0	1	PSLC	0.110299	0.313357	0	1
JCE	0.079058	0.269943	0	1	JCE	0.076782	0.266327	0	1
MSCE	0.037006	0.188856	0	1	MSCE	0.038391	0.192197	0	1
Tertiary	0.011775	0.107916	0	1	Tertiary	0.014625	0.120084	0	1
Household size	6.693019	2.296416	3	19	Household size	6.795247	2.09692	3	19
Household welfare	8,094.245	39,561.55	0	510,000	Welfare	17,952.11	61,043.54	0	510,000
Individual characteristics					**Individual characteristics**				
Age	11.03448	3.636884	6	18	Age	10.80561	3.549217	6	18
Primary	0.777965	0.41579	0	1	Primary	0.806825	0.394909	0	1
Girl	0.497897	0.500206	0	1	Girl	0.493602	0.500112	0	1
Obs.		1,189			**Obs.**		1,641		

Source: Created by Author based on IHPS Data (2018).
JCE, lower secondary; MSCE, upper secondary; IHPS, integrated household panel survey.

the people cannot obtain any educational certificate and the proportion of the uneducated mother is higher than uneducated father. Over all, there is a difference

between the fathers' educational achievement and mothers' educational achievement at all stages. The proportion of fathers who had obtained educational certificate is higher than mothers at all stage of the education. At upper secondary and tertiary education, a number of fathers outnumbered a number of at least 2 to 1.

Ⅳ. RESULTS

1. Results

〈Table 3〉 presents the estimated results of marginal effects on primary and secondary-aged children's educational achievements. Main independent variables are paternal education and maternal education. Furthermore, other demand-side factors are using to determine the results.

Parental characteristic is being known for the main demand-side factors that directly affect children's schooling outcomes. However, none of the differences measured were statistically significant between parental education and children's attendance. This result is in contradiction to the previous literature review that determined positive correlation between parental education to child schooling. In terms of control factors, there was no correlation found between control factors and children's attendance in the short-term and medium-term. Regarding that control factors are major demand-side determinants of children's schooling, this result is striking observation which doesn't match with previous studies. Regarding the household characteristics, household's welfare does not significantly affected outcomes neither in 2010 nor 2016. It is not consistent with previous literatures examined positive relevance between educational achievement and household's economic status (Abbam, 2018; Chi & Quian, 2016). Household size is not significant. Although most studies documented household size is negatively affects to children's attendance (Cheng, 2009; Quang, 2012), this studies cannot find positive correlation between paternal education and children's attendance. Likewise, there are no significant results from individual characteristics. The previous literature review found increasing age affects children's schooling and gender difference is one of the reason to determine attendance (Ming, 2010). In this study however, every independent variable are nonsignificant.

〈Table 3〉 Results of marginal effects on children's educational achievement

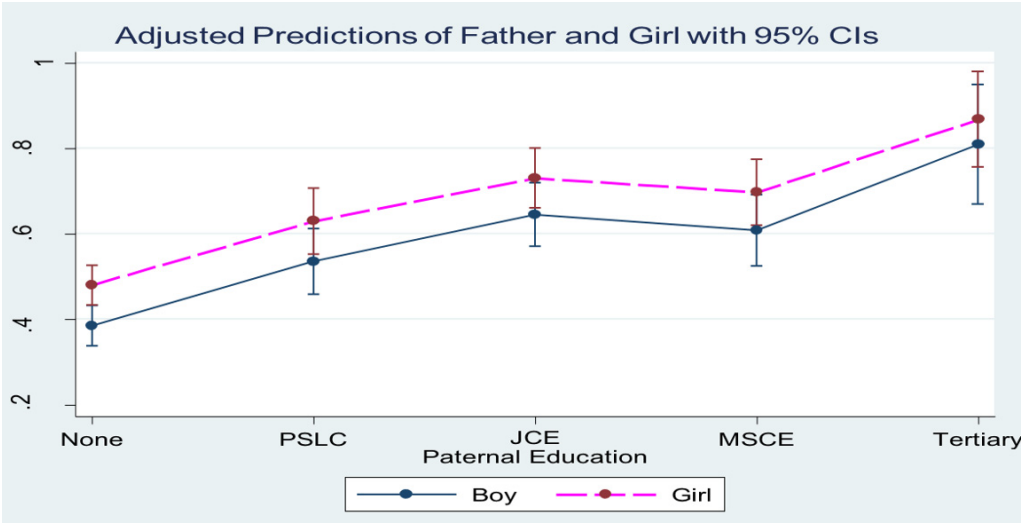
	Attendance			Literacy	
Variables	year 2013	year 2016	VARIABLES	year 2013	year 2016
Paternal education			*Paternal education*		
PSLC	0.0012	2.22E-07	PSLC	0.151***	0.0913***
	−0.002	−7.82E-07		−0.0425	−0.0274
JCE	0.0004	1.79E-07	JCE	0.257***	0.136***
	−0.001	−6.13E-07		−0.0416	−0.0234
MSCE	0.0013	2.31E-07	MSCE	0.222***	0.171***
	−0.002	−7.99E-07		−0.0464	−0.0222
Tertiary	0.0015	-	Tertiary	0.409***	0.215***
	−0.003			−0.0698	−0.0218
Maternal education			*Maternal education*		
PSLC	0.0013	−1.93E-06	PSLC	0.177***	0.0740***
	−0.002	−6.52E-06		−0.0454	−0.0236
JCE	0.0012	6.29E-09	JCE	0.279***	0.0943***
	−0.002	−1.60E-07		−0.0506	−0.0267
MSCE	0.0003	−0.00002	MSCE	0.260***	0.0728
	−0.002	−0.00007		−0.0744	−0.0478
Tertiary	−0.154	-	Tertiary	0.247*	-
	−0.174			−0.13	
Age	0.001	−3.06E-06	Age	0.146***	0.0665***
	−0.002	−0.00001		−0.0103	−0.0044
Household size	0.0003	9.91E-06	Household size	−0.0117*	0.000361
	−0.0006	−0.00001		−0.00658	−0.00419
Welfare	2.13E-08	1.65E-09	Welfare	5.06e-07*	3.33e-07*
	−3.88E-08	−1.78E-09		−2.63E-07	−1.95E-07
Primary	0.004	0.00004	Primary	0.260***	0.210***
	−0.006	−0.0001		−0.0537	−0.0369
Girl	−0.0001	−0.0002	Girl	0.0971***	0.0312*
	−0.0005	−0.0001		−0.0282	−0.0176
Obs	1,189	1,641	Obs.	1,189	1,641

Robust standard errors in parentheses * $p<0.1$, ** $p<0.05$, *** $p<0.01$.
JCE, lower secondary; MSCE, upper secondary.

In the case of literacy, parental education is positively associated with the outcomes of the all education level, both short-term and medium-term aspects. As for paternal education, the children whose father have attained primary education, the probability is 15.1% (p<0.01) in 2013 and 9.13% (p<0.01) in 2016. The fathers that have attained lower secondary's probability are 25.7% (p<0.01) in 2013 and 13.6% (p<0.01) in 2016. The probability of fathers with upper secondary is 22.2% (p<0.01) in 2013 and 17.1% (p<0.01) in 2016. The probability of fathers with university degree is 40.9% (p<0.01) in 2013 and 21.5% (p<0.01) in 2016. As for maternal education, it is positively associated with the outcomes of the all education level, both short-term and medium-term aspects. The children whose mother have attained primary education, the probability is 17.7% (p<0.01) in 2013 and 7.4% (p<0.01) in 2016. The mothers that have attained lower secondary's probability are 27.9% (p<0.01) in 2013 and 9.4% (p<0.01) in 2016. The probability of mothers with upper secondary is 26% (p<0.01) in 2013 and 7.28% (p<0.01) in 2016. The probability of mothers with university degree is 24.7% (p<0.1) in 2013 and cannot statistically estimate the result from 2016. Estimated probability has a lower likelihood comparing to 2013 and 2016. Furthermore, maternal education has a lower likelihood of children's literacy than paternal education at all education level. The results match previous studies which have documented the role of parents' and educational achievement on children (Huisman & Smits, 2009). In the past, researchers focused on the effects of maternal education on their children (Abuya et al., 2018; Amuda & Ali, 2016). Some research has proved the correlation between father's educational background and results in education but mainly focused on higher education, not primary education (Schlechter & Milevsky, 2010). Control factors used in this research substantiate previous empirical literatures findings. With regards to household characteristics, household welfare has positive association both short- term and medium-term. Even if coefficient is small, it is significant at 10% statistically significant. The results demonstrate that household's economic status influences to children's academic achievement (Mingat, 2007). Household size negatively associated with the literacy by 1.17% (p<0.01) in 2010. On the subject of individual characteristics, age is significantly associated with the literacy by 14.6% (p<0.01) in 2013 and 6.65% (p<0.01) in 2016. These findings have confirmed previous studies that increasing age affects children's schooling (Takeda

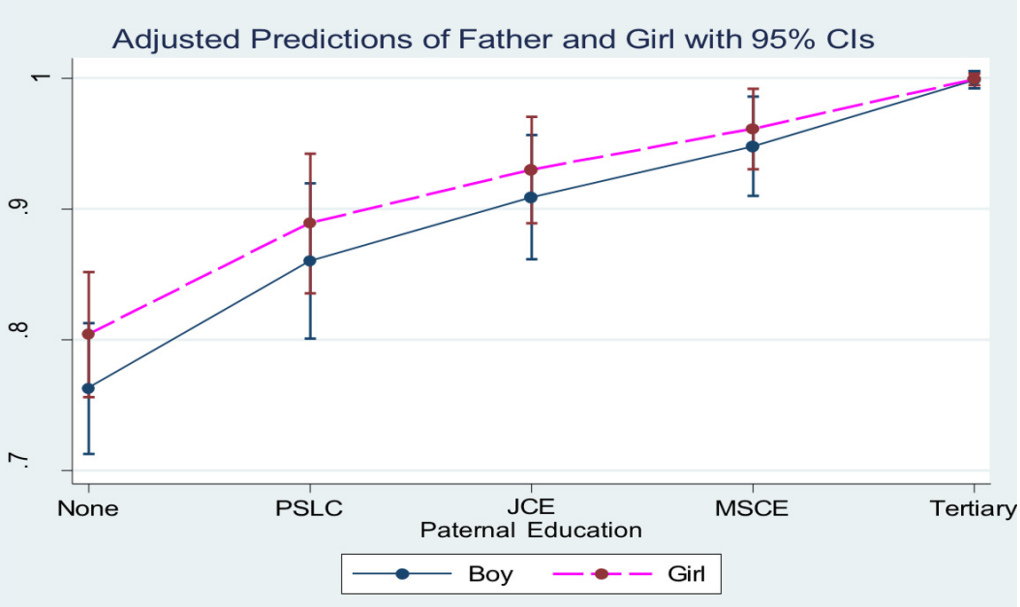
& Lamichhane, 2018). As for gender, female students' shows 9.71% (p<0.01) in 2013 and 3.12% (p<0.1) in 2016. Male students' result in a negative outcome of a short-term and medium-term period. This findings have documented previous studies that girl's academic performance is better than boys (Farooq et al., 2011; Teese et al., 1995; Van Broekhuizen & Spaull, 2017). Relationship between can be clearly shown in 〈Figure 3〉 and 〈Figure 4〉 which represents interaction effects of fathers' years in education and student's gender. The higher fathers' years in education, the more primary and secondary-aged children are positively correlated to the literacy irrespective of gender. Although probability slightly decreased from lower secondary (JCE) to upper secondary (MSCE), it has risen sharply from MSCE to tertiary education. Compare to student's gender, girl always performed better than boy regardless of their father's years in education. This tendency also can be observed in medium-term periods. Children's literacy more likely to be enhanced with more educated fathers. Girl's literacy is better than boys at all fathers' years in education level but gender gap has gradually decreased. When compared girl and boy whose father had obtained university degree, there are no difference by gender. Concerning children's education level, probability of primary-aged children's literacy demonstrates 26% (p<0.01) in 2010. It reaches 21% (p<0.01). Whereas

〈Figure 3〉 Graph of interaction effects between father and student's gender from 2010 to 2013



Source: Created by Author based on IHPS Data (2018).
JCE, lower secondary; MSCE, upper secondary; IHPS, integrated household panel survey.

〈Figure 4〉 Graph of interaction effects between father and student's gender from 2013 to 2016



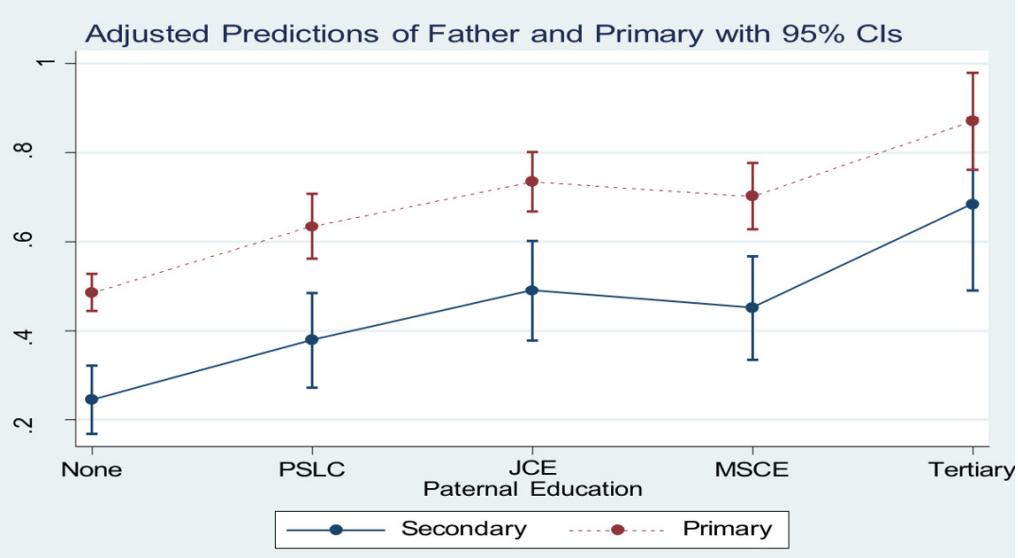
Source: Created by Author based on IHPS Data (2018).
IHPS, integrated household panel survey.

secondary-aged children are negatively associated with the literacy both short-term period and medium-term period. As for interaction effects as shown in 〈Figure 5〉 and 〈Figure 6〉 probability of interaction between fathers' years in education and primary-aged children are strongly significant with the children's literacy in the short-term period. Even if there are slight decreasing from lower secondary (JCE) to upper secondary (MSCE), interaction between fathers' years in education and children's literacy have increased steadily. Compared primary and secondary, primary- aged children always positively correlated to the children's literacy. Similar results are investigated in medium periods. One interesting thing is that children who had university- degree father are strongly positively significant primary-aged children as well as secondary- aged children. It suggests father who was college-educated can have the greatest effect on children's schooling.

2. Limitation

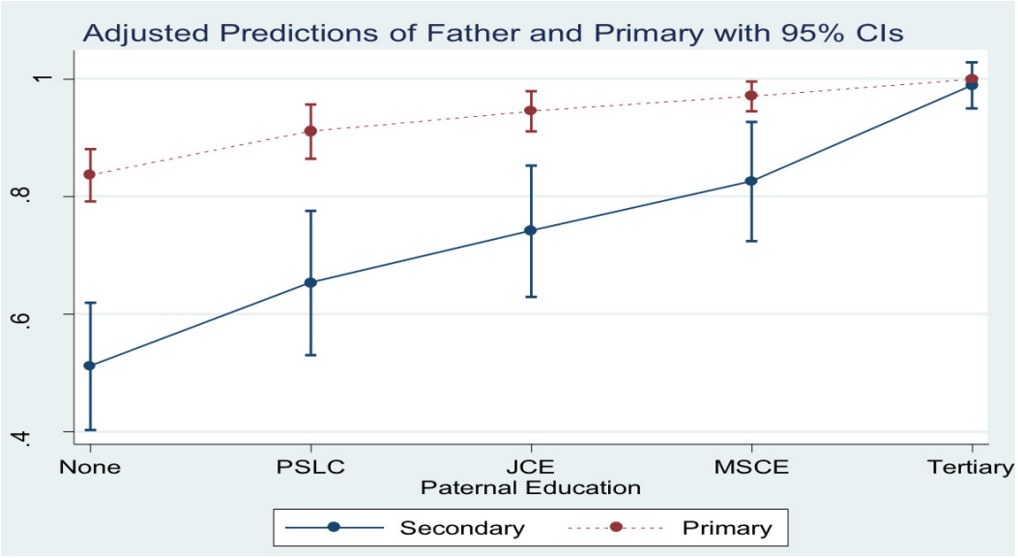
There are several limitations in this research. Firstly, there are unobserved

〈Figure 5〉 Graph of interaction effects between father and student's education level from 2010 to 2013



Source: Created by Author based on IHPS Data (2018).
JCE, lower secondary; MSCE, upper secondary; IHPS, integrated household panel survey.

〈Figure 6〉 Graph of interaction effects between father and student's education level from 2013 to 2016



Source: Created by Author based on IHPS Data (2018).
JCE, lower secondary; MSCE, upper secondary; IHPS, integrated household panel survey.

variables. This study uses demand-side factors especially focused on family characteristics. Supply-side factors might have possibility to influence to the results like national education expenditure, lack of resources, misallocation of the education budget and low quality of the school facility can be the unobservable factors of the results. Secondly, the research has omitted variable problem. It is not possible to measure the correlation between maternal education and children's literacy who had obtained university degree due to statistical problem. Related to the sample which used in this study, only 38 mothers can be observed who had obtained university-degree. In Malawi, only few female students can get a chance to go to the university, and girl's drop-out rate is significantly high even if primary-level. At first educational stage, they miss the chance to continue their studies. In this Malawi's context, it is obvious that university-degree sample size is extremely small. It can be the one of the reasons why statistic tool cannot gain the results of university-degree mothers. Furthermore, the dependent variables are binary due to the data limitation.

V. DISCUSSION

1. Discussion

This research ushered in understanding demand-side factors specifically focusing on paternal education. Most researches regarded maternal education as a better predictor of children's educational outcomes (Eamon, 2005; Nguon, 2012). Compared to maternal education, father has no significant correlation or lesser effects on the children's educational outcomes. Particularly, the role of mother has been highlighted to develop children's literacy (Waldfogel, 2006) and father does not regard as the main determinants (Flouri & Buchanan, 2004). In this sense, this study calls into question the common findings, and provides the possibility that paternal education is an appropriate proxy to enhance children's educational outcomes in Malawi. Educated father generates the intergenerational effect of education.

As for Africa's context in which males hold the purse strings, children's education depends on father's perception of education. If fathers recognize the importance

of education, it can affect children's educational outcomes (Amadiume, 2015; Atta, 2015). In this sense, the observation that significance of paternal education on children's literacy might be possible explanation in Malawi.

Although Malawi consists both of matriarchal society and patriarchal society, women usually lag behind in many ways. Gender discrimination is predominant in Africa and the majority of female cannot obtain opportunities to attend school.

Putting children in education opportunity is a big decision for parents in developing countries. The household income of the poor is extremely low and the cash flow is unstable. The household's priorities are taking care of urgent economic problems for their daily livelihood. Education is a matter of opportunity cost for parents. Even when the education fee is free or low, parents still have to pay pocket educational expenditure (Arnold et al., 2011). In that sense, if parents know the importance of education, they would gladly invest their economic resources in caring for children directly and indirectly. Usually, boys obtain higher chances of schooling, which creates gender-related discrepancies related to education. Compared to boys, girls are in danger of early marriage (Fisher et al., 2017). These tendencies of early marriage hinder girl's educational attainment as it is directly linked to low-development in maternal education. Parents do not invest economic resources to girl and female students cannot get an opportunity to get an education in the school. Considering that the male is the main decision-maker who holds the purse strings, interaction between paternal education and girl's literacy can be explained in the Malawi context. Elaborating on this point, there is a need for a new policy design that target female with the sacrifice of male. Policy suggestions are drawn by considering the constraints women face in developing countries. Taking policy actions that are explicitly focused on female may by necessary over a period of time in order to overcome prevalent gender inequality.

Malawi is young country which led by young people. People whose age are over 65 is almost 4% as opposed to 48% of children that are age is below 15 years old. It implies that education of youth is important to develop human capital giving consideration to Malawi's demographic composition. Among the total population, males make up 48% and females 52%. Likewise gender ratio, Malawi society consists both of patriarchy and a matriarchy. Central and southern regions are

composed of matriarchal societies and northern region is known as a patriarchal society. Some of the South-western parts are dominated by patrilineal cultures as well (Berge et al., 2014). Even if ratio of male to female and matrilineal to patrilineal culture is similar, Malawi has many restrictions on women's right. Gender discrimination is predominant not just patriarchy but also matriarchy. Main monetary asset in Africa is land and it is inherited by father to son in patriarchy system. It same goes for matriarchy that majority of property are passed to mother's brothers. As a result, women cannot own their land both matriarchy and patriarchy (Berge et al., 2014; Hatcher et al., 2005). It implies that majority of female are of low socioeconomic status and they cannot be regarded as financial assets in households. Parents do not feel necessity of girl's education and male's number of years in education year is higher than a female. Although gender disparity has decreased incrementally, there still exists huge gap between the male and the female. Under limited financial resources, parents consider the opportunity cost when they decide to send their children to the school. Usually, boys have higher chances of attending school and it results in a big difference related to the number of years of education. Compared to boys, girls are in danger of early marriage even if people who are under maternal systems. Before 18 years old, 64% of females were their first sexual encounter, compared to 42% of males.

2. Conclusion

This study explores how fathers' educational background influences children's schooling outcomes in the form of attendance and literacy. The sample of the target is official primary- aged (6–14) and official secondary-aged (15–18) children in Malawi. The study period is restricted to from 2010 to 2016. In this investigation, both of the paternal education and maternal education do not affect primary and secondary-aged children's attendance. Even where fathers' years in education is secondary or tertiary, it is not significant for attendance both in the short-term and medium- term. This finding is different from previous studies which examine the correlation between parents' educational background and access to school. Considering that other control factors also have no significant correlation, it might be presumed that other decisive factors are existing in

Malawi different from other countries. In contrast to attendance, correlation between parents' educational background and children's literacy is always positive. Particularly, fathers' educational achievement is strongly associated with the literacy in the short term and medium term. These findings are consistent with the few empirical studies that have been proposed to explain importance of fathers' role in children's educational achievements (Flouri, 2005; Sarkadi et al., 2008). With regarding to gender, girl illustrates positively associated with literacy both short- term and medium-term. It corroborates Africa's current tendency that female's academic performance tends to be superior than for males. Progress in International Reading Literacy Study (PIRLS) 2016 report has proven that girls performed better than boys and this gender disparity is one of the main characteristics in South Africa. Reports stated 84% of boys did not reach the lowest evaluation standard compared to girls ratio of almost 72%. Similar results were shown in the 2011 PIRLS report as well. There are many reasons that might explain the pupils' achievement. From among the factors, this paper underlines parental education is one of factors affecting children's schooling outcomes. This finding corresponds to the interaction terms with paternal education and student's gender. Research has found that father and girl are significantly associated with the children's literacy both short-term and medium-term.

Notably, intergenerational impacts have proven to be a more effective between mother and daughter (Nguon, 2012; Muller, 1998). In contrast with previous empirical studies, this research has found significant interaction between father and daughter. More educated the father, the more daughters improved their literacy. This interaction has a much greater effect than between father and son. Even if the role of mother's educational background has been highlighted for a long time, this study suggests that paternal education can be an important proxy in Malawi not only boy's education but also girl's education. Few researches have examined relationship between father on daughter (Franklin & Boyd-Franklin, 2000; Zia et al., 2015) but usually mother and daughters' interaction effects are used as proxy in the research (Chatterji, 2018).

To address the pupil's educational level, primary-aged children are always significantly associated in the short term and medium-term. Paternal education always positively associated with primary-aged children's literacy. Compared to

primary-aged children, secondary-aged children negatively associated with the literacy. The previous study has found that accessibility of primary school is better than secondary school because of free primary tuition fee (Inoue & Oketch, 2008; Riddell, 2003). Interestingly, among students with college-educated fathers are strongly likely to have high literacy ability regardless of student's educational level and gender. This finding coincides with the previous studies that has determined positive correlation between fathers' characteristic and children's' schooling outcomes (Nyarko, 2011). This result highlight again that father's educational background is important determinants children's educational achievement, and it might be explained through gender characteristic of Malawi society which man gained power in various aspects.

Comparing short-term and medium-term period, paternal education can enhance children's literacy short-term as well as medium-term. However, medium-term was detected less likely to improve children's literacy. There may be a short-term effectiveness between paternal education and children's literacy and it to last, but less effective as time goes by.

Together these results provide crucial insights into parental characteristic on child schooling which specifically focused on paternal education. In response to the hypothesis question 1, there was no significant increase of paternal education associated with children's literacy both short-term and medium-term. In response to the hypothesis 2, parental education positively significant to children's literacy skills. To be concrete, girls are significantly correlated with paternal education than boys and primary-aged children are significantly correlated to paternal education than secondary-aged children. In terms of period, both of the short-term and medium-term has positively associated with the children's literacy but short-term period have more impact.

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Original Article

Impact of Saemaul Movement in Community Participation on Indonesia Village Fund Program in Tanjungwangi Village, Indonesia

Aida Fitria*
Hwa Seok Hwang**
Dong Hyun Shin***

Abstract

This study analyzes the implementation of the Saemaul Movement in Indonesia through the Village Fund Program as the spearhead of development and improving community welfare. This study intended to compare the Saemaul Movement Project and Village Fund Program in Indonesia, and analyze how indirect impacts indicate the process of mindset transformation. This study uses a quantitative methodology to measure the effect of Saemaul Movement Project participation on the Village Fund Program participation in Tanjungwangi Village. This study uses the Partial Least Square Structural

* **Main Author:** Master's Course, Kyungpook National University / myadelia.2017@gmail.com
** **Co-author:** Professor, Kyungpook National University / hhs2129@knu.ac.kr
*** **Corresponding author:** Professor, Kyungpook National University / dhshin@knu.ac.kr
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Abstract

Equation Model (PLS-SEM). In terms of participation, the positive impact of the Saemaul Movement Project on the Village Fund Program indicates the Movement's positive effect in Tanjungwangi Village. Based on the findings of the study, we suggest policies to strengthen villagers' active participation in rural development projects, by applying the positive impact of the Saemaul Movement to improve the Village Fund project in Indonesia. Indonesian policymakers can take lessons from this to improve participation in community development programs. Furthermore, transfer of knowledge programs will accelerate the more sustainable application of the Saemaul Movement Project in the future. Additional support for the highly capable village is also expected in the future. The participation rate of the pilot villages can be boosted by implementing competition schemes, which take into account mindset changes.

Key words: Participation, Community Development, Partial Least Square-Structural Equation Model, Saemaul Movement, Village Fund Program

Ⅰ. INTRODUCTION

New Village Movement as known as Saemaul Movement was regarded as a successful community driven development program in Korea. Through Saemaul Movement, Korea support developing countries by sharing experiences and implementing Saemaul Program to achieve the goal in improving quality of life and reducing poverty alleviation to prosperity. Korea has experienced outstanding achievement in combining rapid economic development with significant reductions in poverty alleviation. Korea's GNI (Gross National Income) per capita was increased from USD 100 in 1963 to more than USD 31,762 today (World Bank, 2021).

Indonesia is one of the countries that adopt Saemaul Movement and several villages had appointed as pilot project to implement Saemaul Movement since 2008. The first of The Saemaul Project signing within the framework of Sister Province Cooperation between Gyeongsangbuk-do Province in Korea and Yogyakarta Special Region in Indonesia. This cooperation brings greatly benefits and initiated to increase the well-being of rural development with improving village infrastructure, improving living condition, volunteering activity by encouraging self-sufficiency for rural people, implementing Saemaul Spirit (self-help, diligence, and cooperation).

Poverty defines a level of life that is below the minimum standard of living needs. Poverty still remains the crucial issue in Indonesia, moreover triggered by the Covid-19 pandemic further compounds to the complexities of the matter. According to Indonesia Statistics Agency (BPS, 2021) the percentage of poor people living in rural and urban areas in March 2020 was 9.78 per cent. It indicates the number of people in urban and rural areas who are living in the poverty line had reached 26.42 million people. The number of poor people living in urban and rural areas increased by 1.63 million in March 2020, compared to 24.79 million in September 2019 (9.22 per cent). According to statistics, the population of poor urban people increased dramatically from 9.86 million in September 2019 to 11.16 million in March 2020, with 1.74 million people expanding rapidly. In contrast, the number of poor people living in rural areas has increased significantly by around 330 thousand from 14.93 million in September 2019 to 15.26 million in March 2020. Consequently, poverty growth in urban areas is

substantially higher than in rural areas. Poverty is defined not simply by the number and proportion of poor people living in urban and rural areas. The depth and severity of poverty are two additional factors that must be addressed.

However, Government of Indonesia also endeavor to reduce poverty alleviation with various local community development project. According Alam, 2018 from the 1994 to the present, the government of Indonesia has conducted a number of programs such as IDT (Presidential Instruction of Disadvantaged Villages), P3DT (Supporting Infrastructure Development Program for Disadvantaged Regions), PPK (District Development Program), formation of UPK (Financial Implementing Unit) and PNPM (National Program for Community Empowerment) to eliminate rural poverty, improve quality of life, and develop rural areas. Although, these programs did not affect the satisfactory goals and targets, instead contributing to the enrichment of the wealthy while doing nothing to improve the lives and environment of the rural poor, hence widening the income inequalities. In particular, these programs have been identified as having a number of common problems, including insufficient institutional coordination and implementation approach; inefficient delivery; political disruption; lack of leadership; inconsistencies in policies and programs; and a lack of self-help in capabilities.

In 2015 the Government of Indonesia launched Village Fund Program as Government Planning and Program to Build Indonesia from the periphery by strengthening areas and villages. According to (Arham, 2020) reveals that village fund transfer is insignificant in addressing the issue of income inequality, rather education and agricultural labor productivity tend to be the determinant factors in dealing with the issue of income inequality in rural regions. The study also analyzed the impact of village fund transfer in reducing rural poverty rates and emphasizes the significance of human quality and the agriculture sector in improving rural poverty rates in rural region.

In compliance with the background, this study would review the impact on participation experience in Saemaul Movement Project in Tanjungwangi Village on Participation in the Village Funds program with a view to enhancing the implementation of the Saemaul Movement perspective in Indonesia. The study work starts by investigating the Saemaul Movement Project's application in Indonesia and the Village Fund program in Indonesia and afterwards evaluate the impact on the Village Fund program of the Saemaul Movement Project. The

objectives of this study is to suggest Indonesia policymakers can take lessons from Saemaul Movemement Project to improve community participation in Indonesia community development program. And the study tends to recommend a policy to improve the implementation and design of community development of Saemaul Movement Project in Indonesia and transfer knowledge will upgrade and encourage Saemaul Movement Project into a bigger village.

Ⅱ. LITERATURE REVIEW

There are three main factors supporting the realization of the community participation as a real activity; (1) a will, (2) an ability, and (3) an opportunity for people to participate in (Sumardjo, 2003). These factors are influenced by many factors surrounding the life of human beings interacting with each other, such as the psychological individual (needs, expectations, motives, reward), education, lack of information, skills, technology, institutional support, structural and social stratification, the local culture as well as regulatory and government services. According to (Sumardjo, 2003), there are elements that support for certain behavior in a person (Person inner determinants) and there are ads or environmental factors that enable the behavior.

According to (Sahidu, 1998), the factors affecting the level of willingness of society to participate are the motives, expectations, needs, rewards and control information. Factors which gives people the chance to participate is the setting and service, institutional, structural and social stratification, local culture, leadership, facilities and infrastructure. While the factors encouraging them to involve areas of education, capital and experience.

Factors that are thought to influence the activeness of the community to participate in development planning might be classified into two categories, namely factors of internal (consist of data about age, level education, type of work, level of income population, length of stay) and factors of external (consisting of communication and leadership) based on (Suroso et al., 2014).

1. Community Development

As claimed by (Smart, 2017) Community development is a process in which

agencies assist community people in identifying and taking collective action on issues that matter to them. Community development strengthens and connects communities by empowering residents. Community development views residents as experts in their own lives and communities, and places a high importance on their knowledge and wisdom. At every level of a community development program, from deciding on concerns to selecting and implementing solutions, to evaluation, community members are in charge. In order to address the causes of inequality and poverty, community development places a strong emphasis on power re-distribution.

In 〈Table 1〉, explanation the distinction between community-based on work that engages the community and the community of development work that is driven by the community.

As can be seen, community development may not be the appropriate approach if the results and actions that will be used have already been determined and there is no opportunity for the community to define the outcomes and actions. Community development is a long-term process; participation and planning might take a year or more, and it can take several years to develop the ability of community members to lead the initiative and assure long success. On the other

〈Table 1〉 The contrast of community among community-based and community development work

For community-based work	For community development work
An issue or problem is defined by agencies and professionals who develop strategies to solve the problem and then involve community members in these strategies. Ongoing responsibility for the program may be handed over to community members and community groups Personality: · The agency is in charge of making decisions. · The agency defines the problem or issue. · Timelines are well-established. · Pre-determined outcomes, such as changes in specific behaviors or knowledge levels.	Community groups are given assistance in identifying critical problems and issues, and also planning and implementing solutions to fix those concerns and resolve issues. Personality: · The agency's and community members' power relationships are continually being negotiated. · The community first names the problem or issue, then the problem or issue is described in a way that advances the community's and agency's shared interests. · The duration of the job is longer. · The targeted long-term consequence is usually changed at the neighborhood or community level, with an increase in community members' capacities as a result.

hand, according to (Baldwin et al., 2016) Community-based development is a method of conducting local development projects that encourages for community engagement in decision-making and management, with the goal of managing more effective programs by utilizing local expertise and resources. The "community-based development" approach has the potential to motivate people and improve outcomes through three mechanisms: (1) an immediate direct effect of encouraging the participation in deciding how to manage resources within the community-based development program, (2) an indirect effect on community organization that helps to improve people 's participation with other local institutions, and (3) an indirect effect on community organization that improves perception within centralized government structure.

According to (World Bank, 2021) considers that CDD (Community-Driven Development) concepts and actions are critical components of an effective poverty-reduction and long-term development strategy. CDD initiatives are based on the concepts of transparency, participation, accountability, and increased local capability. Experience illustrates that when the impoverished communities are given clear and consistent rules, availability of information, and applicable technical and economic support, they can efficiently manage to recognize community priorities and solve local issues by collaborating with local governments and other institutions to create small facilities and provide essential services.

Based on (Binswanger-Mkhize et al., 2010) defines Local Community-driven Development (LCDD) concept begins with the surveillance that community empowerment does not occur in a vacuum; it is influenced by local government development and national government sectoral programs. This approach brings together three alternative solutions to local development that emphasize many of the same principles: empowerment of the poor and other marginalized groups, ability to respond to beneficiary demand, autonomy of local institutions, greater accountability, and development of local capacities. LCDD is not only a project; it implies a fundamental revolution of political and administrative institutions with the goal of providing communities and local governments with the capabilities, resources, and authority to use these dynamically and sustainably, allowing them to take charge of their development. Empowerment is increasing poor people's resources and capabilities to participate in, discuss with, and hold responsible

institutions that affect their life. It essentially gives people a chance and access to information, as well as improve social participation, responsibility, and organizational power.

2. Participation

According Based on (Howard & Wheeler, 2015) definition of participation is part of the reason for involvement is that it is seen as an antidote to the faults of previous targets and frameworks, with the notion that greater inclusion and public participation will improve the new global framework's viability and legitimacy. Based on (Smart, 2017) participation in community development refers to the full involvement and leadership of community members in establishing plans, developing, giving, and assessing community actions or initiatives. Participation should not be tokenistic; community members should participate in ways that are meaningful to them and to the community development initiative as a whole while it takes time to achieve significant participation.

According (Cohen & Uphoff, 1980) many other essential criteria should be considered when assessing a governance transformation, such as the type of participation (participation in making decisions; implementation; benefit, and evaluation) or how the process occurs (the basis of participation, its form, its extent, its effects). (1) The stage of decision-making, which is realized by community participation in meetings. The decision-making step in this context refers to the planning and implementation of a program. (2) The implementation stage, which is the most crucial stage in development because it is at the heart of development. The real meaning of participation in this step is divided into three parts: participation as a thinking contribution, financial contributions, and forms of action as project members. (3) The stage of enjoying the benefit, which can be used to assess the success of community participation in the project's planning and implementation stages. Furthermore, by observing at the community's position as the subject of development, the greater the benefits of the project, the greater the chances that the project achieve the goals. (4) Evaluation stage, which is regarded crucial because of community participation at this stage provides feedback to contribute input for future project implementation (〈Table 2〉).

〈Table 2〉 Cohen and Uphoff (1980) classification of participation

Types of Participation	Participation in decision-making Participation in implementation Participation in benefits Participation in evaluation
Who Participates?	Local residents Local leaders Government personnel Foreign personnel
How is participation occuring?	Basis of participation Form of participation Extent of participation Effect of participation

Source: (Bene, 2006).

As a result, community participation in development projects is theorized to be effective in this model by involving all stakeholders (local citizens, local leaders, government personnel, and foreign personnel) at all phases using top-down and bottom-up approaches. As stated in (Bene, 2006) Uphoff's typology has an applied focus and includes not only different types of participation but also who participates and how. The authors recommend to organize the typology of participation due to the project cycle phases (decision-making, implementation, benefits, and evaluation), although the phases are not generally consecutive. The "who" dimension divides the actor involved into local residents, local leaders, government personnel, and foreign personnel. The "how" dimension explains several mechanisms via which involvement can take place, including its basis, form, extent and impact.

3. Saemaul Movement in Korea

1) Saemaul Movement in 1970

In according with (Han, 2011) The New Community Movement, or Saemaul Movement, is Korea's most triumph of the rural development program. Most

Korean people consider this rural modernization project to be the most effective achievement in recent Korean history, according to various national assessments. The Saemaul Movement is a spiritual movement in rural Korea, where people are educated to break free from dependency and fatalism and embrace the challenge. The end purpose of this mental revolutionary was to transform people' attitudes to achieve better their particular living standards, not the society or the country as a whole. Their mentality could be described as "grow mentalism" because they set increasing earnings and efficiency as their ultimate goal. Because the Korean government has prioritized development since the 1960s, this was not peculiar to policymakers and villagers in Korea.

As determined by (Soo, 2005), the Saemaul Movement was founded in the early 1970s to improve the living conditions of those living in rural areas. Korea President Park Chung-Hee instructing in a national convention of central government, governors and priests on strategies to develop self-help village enterprises according to involvement between cultivate pioneers, ranchers, and government agencies involved. The central government considered the pilot program to be particularly notable. In early 1971, the national government distributed 335 packets of cement to every one of the country's rural towns to enhance farmers' immediate living conditions, for example, town piped groundwater facilities, communal clothes ranges, communal compost sites, and so on, based on this assessment. According to statistics, the central government contributed $8.5 million, while completed projects reached $ 25 million.

Several characteristics define the Saemaul Movement, stated by (Yi, 2016). It was carried out using an "integrated approach," which was a blend of top-down and bottom-up methods. The Saemaul Movement is a traditional Korean method of community development. It signifies that it was implemented based on the beneficial qualities of Korean heritage and culture. This means of avoiding hunger and poverty, and the initiative of better-living, concerned the diversifying of farm households' sources of revenue, which were previously essentially limited to paddy cultivation. Government interference was very beneficial as a "top-down" method, while community/people participated collaboratively as a "bottom-up" method through the Saemaul Movement.

Eventually, (Soo, 2005) explains in his study that the Republic of Korea's

Saemaul Movement has been hailed as a successful business model of rural community development around the world. The Saemaul Movement was a traditional Korean community development project that was started by the country's top leadership's political commitment to help people transcend poverty. The Saemaul Movement's success is determined by several elements. Firstly, during the entire span of the movement, the central government's help and supervision for the mobilization were critical. Secondly, the implementation process was attended by a diverse group of people. Afterwards, the Saemaul Movement has the potential to be a huge success. Third, the Saemaul Movement may achieve great success by fostering community leadership that is elected by people in rural communities. Subsequently, the Saemaul Movement instilled the people with the spirits of diligence, self-reliance, and cooperation as a spiritual reform movement.

In conclusion, without Saemaul Movement, most of the Korean government's program agricultural productivity and rural income projects could have been accomplished. Instead, if they had, would they have had the same level of triumph and influence in the rural Korea as they did? No, possibly not. Underneath the personal guidance of President Park, Saemaul Movement encapsulated the entire endeavor to economically and socially improve rural areas into a sweeping national movement. The all-encompassing movement rallied the bureaucracy, elevated village life and farming as a profession, and recruited the entire nation in the campaign. Saemaul Movement would have remained an interesting but not transformative initiative if not for the large investments in rural development; nevertheless, without Saemaul Movement, Korea's agricultural investments would not have generated the spectacular outcomes highlighted by (Reed, 2010).

2) Saemaul Movement Project in Indonesia

The implementation of Saemaul Movement Project in Indonesia as part of a sister province bilateral agreement between Indonesia's Province of Daerah Istimewa Yogyakarta (Yogyakarta Special Region) and South Korea's Province of Gyeongsakbuk-do. The two municipal governments signed a Letter of Intent (LoI) on September 9, 2003, and a Memorandum of Understanding (MoU) on February 24, 2005, laying the groundwork for cooperation based on (Suroso, 2011).

The initiative to include Saemaul Movement Program in sister province was

initiated in September 2007. On September 17-21, 2007 a delegation from the province of DIY visited Gyeongsangbuk-do Province and during that period the delegation and their Korean counterpart agreed to set up a follow up program to introduce Saemaul Movement in Yogyakarta cited in (Suroso, 2011). Saemaul Movement Globalization Foundation Indonesia (Yayasan Globalisasi Saemaul Indonesia/YGSI) was established on 12 March 2016. The foundation is headquartered in the Faculty of Philosophy, Gajah Mada University is engaged, in the field of community empowerment involving the participation of villagers directly. In its activities the foundation collaborates with NGOs and local governments to create an independent village community. A foundation that develops the "Saemaul Pilot Village Development" program that focuses on agricultural development and women's empowerment activities. The program is implemented in 3 villages (Bleberan, Sumbermulyo, and Ponjong Village) in Special Region of Yogyakarta Province, and 1 village (Tanjungwangi Village) in Subang Regency, West Java Province.

In 2016, Gimcheon City, which belongs to Gyeongsangbuk-do province, established sister city cooperation with Subang Regency, West Java through Saemaul Globalization Foundation (SGF). As a first step, the SGF team conducted a survey to several villages in Subang for 2 days, from 21 to 22 April 2016. The survey took place in 3 villages namely Gandasoli Village, Tanjungwangi Village, and Tambakdahan Village. The SGF team also held a face-to-face meeting with village representatives to receive inputs related to the program, especially in agriculture. In addition to village representatives, the SGF team also held a meeting with the Subang Regency Government, represented by the Family Planning Community Empowerment Sector (BPMKB) expressing the readiness of Subang Regency to contribute to the program that started around September 2016. Each village has its own advantages, Gandasoli Village has abundant cassava harvest while Tambakdahan Village as Indonesian rice barn has the potential to develop native varieties such as brown rice and black rice. Ultimately, Tanjungwangi Village in addition to having a large rice field area also has fish feed from straw left over from the rice harvest which becomes an interesting innovation. From three villages, one village will be chosen as a pilot village with the same model as in Yogyakarta Province.

On 11-16 August 2016, Saemaul Globalization Indonesia Foundation (YGSI) held

an audience with the Subang government to discuss cooperation with Saemaul's pilot village. Based on the results of a survey conducted in May 2016 by the Saemaul Global Foundation (SGF) Korea Team, the village selected as in the "Saemaul Pilot Village Development is Tanjungwangi Village because of the village's superior product potential, namely fish feed from straw.

In the first year, Tanjungwangi Village plans to create a fish feed program from straw waste. This program was triggered because it saw the abundance of raw materials for making abundant fish feed, namely straw. The raw materials so far still cannot be processed to the maximum, even more often just left alone. Therefore, seeing the potential that has not been worked on, Tanjungwangi village plans to develop fish feed based on straw.

3) Profile of Tanjungwangi Village

Tanjungwangi Village was located in the Subang Regency of West Java Province, in the southern portion of the island of West Java. Tanjungwangi Village is located at 6°35' 02" south latitude and 107°52'17" east latitude. Tanjungwangi Village had an estimated population of 8.188 people, with land area of 930.108 hectares and a densely populated area of 113 people per square kilometer. Tanjungwangi village is bordered on the north by Parung District. Then there's the south side, which is bordered by Gunungtua Village. Tanjungwangi shares a western boundary with West Parung District. Tanjung Village shares a boundary with Bantarsari on the east side (〈Table 3-4〉).

The Village Fund program is used by the Village Government to fund its activities to become a developed village and an independent village. The facts,

〈Table 3〉 Table of demographic profile of Tanjungwangi village

Name of Village	Tanjungwangi
Area	930.108
Population	8.188
Male	4.184
Female	4.044
Hamlet	Tanjungwangi, Palasari, Babakan Curug, Pangkalan, Balenyengked
Potential of economy	Fishery, agriculture

〈Table 4〉 Program planning of Saemaul Movement Project in Tanjungwangi Village 2016 – 2019

No.	Program	Detail
1	Waste management program (2017)	Management and procurement of trash cans
2	Fish seeds (2017)	Training and provision of fish seeds
3	Liquid organic fertilizers	Training and manufacturing of liquid organic fertilizers
4	Papaya calina (2018)	Training and giving calina papaya seeds
5	Catering	Training and catering
6	Sewing	Sewing training
7	Village-owned enterprise	Construction of the village-owned enterprise building and revitalization of the village-owned enterprise
8	Fish feed factory (2019)	Factory construction, machine provision, and fish feed processing training

Source: Saemaul Globalization Indonesia Foundation (YGSI) (2016-2019).

Village Fund Program supported Saemaul Movement Project for Village Owned Enterprises and the Fish Feed Factory (〈Table 5〉).

〈Table 5〉 The use of village fund program

No	Program
1	Procurement of clean water facilities
2	Hot mix road of village
3	Construction of drainage tunnels
4	Construction of a village hall convention
5	Construction of the village-owned enterprise building
6	Bridge maintenance
7	Youth organization training
8	Capital equity of village-owned enterprise
9	Training of effective technology for fisheries/fishermen
10	Coaching family welfare movement
11	Cash assistance for villager

Source: Ministry of Village, Indonesia (2017 – 2020).

4) Village Fund Program in Indonesia

According to (Ministry of Finance, 2017) The Village Fund will increase each village's source of income. Increased village income granted by the government to improve community service facilities such as addressing basic needs, strengthening village institutions, and other activities as determined by the Village Planning and Development. However, the establishment of the Village Fund also creates additional issues, as many people are concerned about the Village Fund's management. According to (Handayani & Badrudin, 2019) Village funds are sourced from the central government (Ministry of Finance) that are distributed to villages in order to build the village. The higher the level of village development, the higher the level of village funds allocated. This increasing level of development has the potential to boost the community's economic activity. As a result, the greater the village funds, the greater the region's economic growth.

The use of the Village Fund is prioritized to finance development and community empowerment aimed at improving the welfare of rural communities, improving the quality of human life and reducing poverty and is stated in the Village Government Work Plan. The implementation of activities financed from the Village Fund is guided by the technical guidelines set by the regent/mayor regarding activities financed from the Village Fund. The implementation of activities financed from the Village Fund is prioritized to be carried out self-managed by using local resources/raw materials, and strived to absorb more labor from the local village community.

The Village Fund can be used to finance activities that are not included in the priority use of the Village Fund after obtaining the approval of the regent/mayor by ensuring that the allocation of the Village Fund for priority activities has been fulfilled and/or community development and empowerment activities have been fulfilled. Village funds are allocated as an indicator of the state's commitment to safeguard and empower villages as they grow in strength, economically advanced, independent, and democratic. Villages can develop and empower themselves by the Village Fund, resulting in a more equitable, prosperous, and prosperous community.

Furthermore, through mentoring and advertising of community crafts, poultry and aquaculture business growth, and improvement of tourism industry with

BUMDes (Village enterprise), the village has the potential to create the economy of the community. The best strategy in constructing the village for the community's welfare is a significant impact of initiative, invention, creativity, and collaboration among rural administrators and the community in accomplishing a specific objective. Rural improvement cannot be passed out simply by rural personnel; it requires support from the community, effort, and involvement.

The results of the study in the Village Fund's utilization over the last two years (2015-2017) also reveal that the Village Fund has enhanced the standard of living in rural areas, as evidenced by a decline in the percentage of village social inequalities between 0.34 percent in 2014 to 0.32 percent in 2017. The proportion of village poverty has dropped from 17.7 million people in 2014 to 17,1 million people in 2017, and the proportion of people living in poverty has shrunk from 14.09 percent in 2015 to 13.93 percent in 2017. Excellent Village Fund management will be able to expand this accomplishment in the following years.

The requirement to carry out activities with a pattern of self-management, using local labor, and using materials of local standards in the village is an essential factor that may be implemented in the management of Village Funds with community involvement. A self-managed pattern means that the community plans and implements these activities independently, ensuring that the money spent on construction does not leave the village. It is intended that by utilizing local labor, these activities will be able to absorb labor while also providing cash to people who work. While the usage of raw materials was intended to generate income, the raw materials themselves were not expected to provide income.

5) The Similarities and Differences between Saemaul Movement in Korea and Indonesia

Saemaul Movement defines as a community development program which aimed to solve poverty problem in Korea in 1970. Even though Saemaul Movement has the same principle with other community development program, not all of the country can fully implement this program. Each country has different condition and factor with Korea such as economic, social, culture, politic, etc. The adoption of Saemaul Movement has to figure out the similarities condition of recipient country between Korea in 1970 and Saemaul Movement Project recently. Therefore,

the condition of recipient country that adopts Saemaul Movement must be fully considered.

Korea is a highly homogeneous country, whereas Indonesia has a wide range of culture diversity and heterogeneous country. In general, Rural Development Program in Indonesia use top-down approach while Saemaul Movement use mixed approach, both of top-down and bottom-up approach. Even tough, there are many differences between adoption Saemaul Movement in Korea and Indonesia. Hence, the importance of the inspiring leader to initiate a rural development, to attract rural people to participate to reach the goal of Saemaul Movement Project successfully. According to (ADB, 2012) discusses the role of government, the effect of leadership, the role of women, ideological considerations, and the availability of resources, especially finance that contribute to community participation in the Saemaul Movement. These factors would determine how the program will succeed even there are different factor and condition in the recipient country specifically for Indonesia.

Indonesia also facing problem and challenges in availability of infrastructure to support improvement economic progress is very limited and must be increased. Limited availability of infrastructure so far is a major obstacle to taking advantage of opportunities in increasing investment and causing expensive logistics costs. Expand the rural economy and develop agricultural sector. Another issue that is still lagging behind and needs attention is efforts to increase productivity agriculture for poor farmers, capture and cultivation fisheries power, and other micro-scale enterprises that support the chain production of small businesses that become potential in the region. Attention also need to be aimed at improving access to land and productive assets that often limit the increase in production and the scale of business of the underprivileged. Availability of facilities and economic infrastructure in rural areas, access to financial services credit and other sources of capital for actor's rural economy, as well as the use of research and technology agriculture, dissemination and provision of information technology.

According (Anwar, 2011) there are some challenges of Saemaul Movement in Indonesia need to be solved as below:

1. Improve the government's commitment and leadership in this movement, as

well as incorporating the movement into the government's strategy to raise people's welfare by fostering self-help village and community engagement in rural development through the use of existing village institutions.

2. Regardless of the widespread knowledge among various levels of local government officials, it is still necessary to strengthen the community's perception of the fundamental principles of the Saemaul Movement.
3. The requirements for selecting the suitable location and the right program beneficiaries have not yet been explicitly specified.
4. It must be agreed that sustainability supports are crucial; people's prosperity, as the program's ultimate goal, will not be accomplished if there are no sustainable programs.
5. There are variety of cultural values and livelihood systems, as well as historical factors, that may influence the program in Indonesia for the future such as planning, implementation, and sustainability.

III. RESEARCH METHOD

1. Objectives of Study

The methodology in this research uses Quantitative Method with primary data which is relies on objective results derived from numeric data obtained by Likert scale questionnaire. The result indicates that the Saemaul Movement Project encourages people to participate the Village Fund. This study intended to:

1. Analyze comparison of Saemaul Movement Project and Village Fund Program in Indonesia.
2. Analyze Saemaul Movement and Village Fund Program in Harmonization.
3. Analyze the direct effect of Saemaul Movement Participation on Indonesia Village Fund Program Participation.
4. Analyze Indirect impact indicates the process of mindset transformation.

The purpose of this study is to examine the influence of involvement in the Saemaul Movement Project in Tanjungwangi Village on participation in the Village Funds program to improve the implementation of the Saemaul Movement

perception in Indonesia. As a result, the Village Fund Program will be able to improve participation more dynamically and sustainably in the future based on the Saemaul Movement project implementation.

2. Scope and Limitations

The scope of this study aims to analyze community participation/involvement in the rural development program, the Saemaul Movement Project, and the Village Fund Program in terms of delivering precise and comprehensive analyses. The research study began on January until May 2021 at Tanjungwangi Village, Subang Regency, West Java Province, Indonesia. This analysis is representing by data and information of enforcement of Saemaul Movement in 1970 - 1980 (the period of Saemaul Movement concentrated on poverty alleviation in rural communities), Saemaul Movement Project in Indonesia from 2017 to 2020 (the duration for managing the village pilot project), and Village Fund Program in Indonesia from 2015 to 2018 (Village Fund Program launched on 2015). Consequently, the research has limitations due to the coronavirus-19 outbreak to get more respondent to fill the questionnaire and limited data about Village Fund Program in Tanjungwangi Village.

3. Research Question

Based on literature review, focus of this study to answer the research question as follow:

1. What effect does involvement in the Saemaul Movement have on Indonesia Village Fund Program?
2. What is the mechanism of Saemaul Movement participation in Indonesia Village Fund Program?

4. Research Methodology

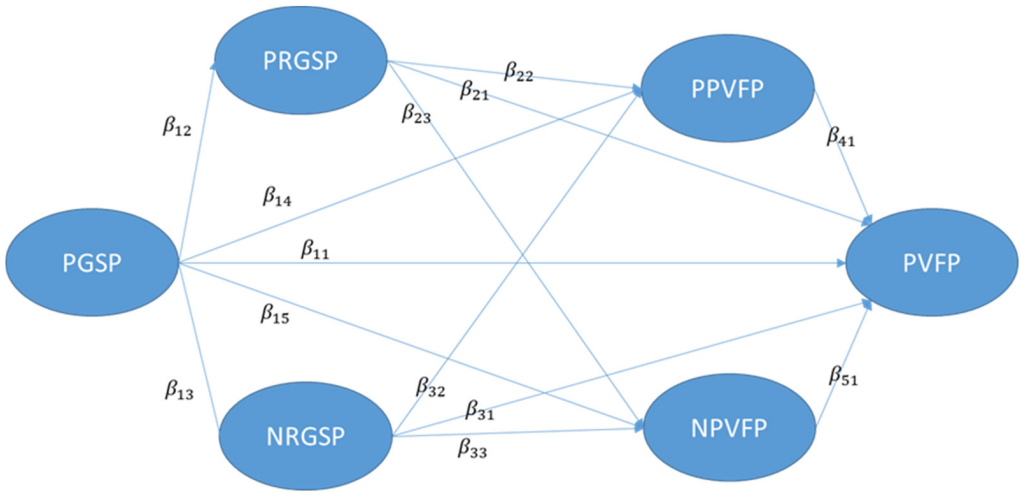
The selection of contributors in the survey and interview stage of this study followed a purposive sampling logic that allowed the choice to be narrowed down to a specific group of persons who can provide an in-depth information in

analyzing community participation in rural development program. The respondents of this study were Tanjungwangi Villagers in Subang Regency, West Java Province, Indonesia. The criteria used for the selection include their willingness to participate in the survey and interview, experience, and knowledge in Saemaul Movement Program and Village Fund Program.

A visit to Tanjungwangi Village Government Office and Saemaul Globalization Foundation Indonesia Representative Office in Tanjungwangi Village, allowed the researcher to gather quantitative and qualitative data. A face-to-face interview method allows for using scrutinizing questions to delve deeper into the identified issues. To guide interviewees, some question was also prepared consisting some factors identified from the literature. A total of ninety-nine (99) participants, Tanjungwangi Villagers, Subang Regency, Indonesia were purposively selected for the survey. Saemaul Globalization Foundation Indonesia and Village Government of Tanjungwangi agreed to have an in-depth interview. The duration of the meeting ranges from 25 min to 45 min. Partial Least Square-Structural Equation Method (PLS-SEM) was used in analyzing the survey data gathered in this research. This research utilizes a model created in the PLS-SEM framework to evaluate how the Saemaul Movement Project affects participation in the Village Fund Program. The PLS-SEM design methodology is based on the theory or argumentation. As a result, as provided as the research is based on theory, it is possible to design models with diverse relations among variables. The method in this study is based primarily on the idea of Saemaul Movement spirit, which is used to implement Saemaul Movement as an education programs that changes participant perspective.

After the Saemaul Movement Project in the recipient country is intended to coordinate with community development programs, it might have a direct effect on the host country's program. Indirect effects from the Saemaul Movement Project to the Village Fund Program, on the other side, might occur through a variety of mediating variables. Saemaul Movement Project's result and the perception of the Indonesia Village Fund Program are two factors in this study that are expected to have a mediating effect. The outcome in the program is influenced by participation. The rate of participation is influenced by perceptions, which also include expectations. As demonstrated by the adoption of Saemaul Movement mentioned in (Choi, 2016) and (Choi, 2014), the program results influence perceptions (〈Figure 1〉).

〈Figure 1〉 The effect of Saemaul Movement Participation on Indonesia Village Fund program participation (Pramadha, 2018)



Note: PGSP =Participation in Saemaul Movement Project
PRGSP =Positive Result of Saemaul Movement Project
NRGSP =Negative Result of Saemaul Movement Project
PPVFP =Positive Perception of Village Fund Program
NPVFP =Negative Perception of Village Fund Program
PVFP =Participation in Village Fund Program

$SP = PGSP + 0$
$PRSGSP = \beta 12PGSP + \varepsilon 1$
$NRGSP = \beta 13PGSP + \varepsilon 2$
$PPVFP = \beta 14PGSP + \beta 22PRGSP + \beta 33NRGSP + \varepsilon 3$
$NPVFP = \beta 15PGSP + \beta 23PRGSP + \beta 33NRGSP + \varepsilon 4$
$PVFP = \beta 11PGSP + \beta 21PRGSP + \beta 31NRGSP + \beta 41PPBVFP + \beta 51NPVFP + \varepsilon 5.$

5. Variable

Variables in this study are calculated using practical criteria, as previously stated. Participation in Tanjungwangi Village Fund Program is the dependent variable in this study, while participation in the Saemaul Movement Project in Tanjungwangi Village, positive and negative results from the Saemaul Movement Project in Tanjungwangi Village and positive and negative perceptions of the Tanjungwangi Village Fund Program are the independent variables. Being educated about the Village Fund program, attending meetings, giving feedback, contributing to the program, and obtaining benefits from the program are all indicators of engagement in the Village Fund program.

Saemaul Movement Project's positive outcome is estimated based on variables

such as increased income, job opportunities, improved living conditions, and increased knowledge of rural community development programs. This variable's indicators are based on the Saemaul Movement idea. Village Fund Based on these indicators, as well as competent administration and leadership, the Village Fund Project has a positive perception, as it shares the exact ultimate goal as the Saemaul Movement as a community development project.

Saemaul Movement Project's negative outcomes are calculated using variables such as dependency, societal conflict, increased inequality, and becoming a source of fraud and corruption. The indicators were derived from aid literature, such as the Saemaul Movement Project and the Village Fund Program. Furthermore, the implementation of a community development program in Indonesia revealed certain unfavorable consequences, such as social strife/conflict and fraud/corruption (〈Table 6〉).

〈Table 6〉 Summary of explanation according (Pramadha, 2018)

Type of variable	Construct/variable	Indicator/criteria
Dependent variable	Participation in village fund program (PVFP)	Fully informed about village fund program (PVFP1)
		Participate to attend the meeting program (PVFP2)
		Sharing Idea and opinion about the program (PVFP3)
		Support and contribute in program implementation (PVFP4)
		Knowing and understanding the utilization of the Village Fund Program (PVFP5)
		Accept benefit of village fund program (PVFP6)
Independent variable	Factor of internal	Data of Age: (〈25, 26-35, 36-45, 46-55, above 56)
		Data of gender: (female/male)
		Data of household in family number (2/3/4/5)
		Earnings/income:
		Less than Rp 1,000,000
		Rp 1,000,000 - Rp 2,000,000
		Rp 2,000,000 - Rp 3,000,000
		Rp 3,000,000 - Rp 4,000,000
		More than Rp 4,000,000
		Status of marriage: married/unmarried
		Employment: (farmer, civil servant, labor, police, entrepreneur)
		Level of education:(elementary, junior high school, senior high school, undergraduate, graduate)

〈Table 6〉 Continued

Type of variable	Construct/variable	Indicator/criteria
Independent variable	Positive perception of Tanjungwangi village fund program (PPVFP)	Increase the number of job (PPVFP1)
		Increase earnings/income (PPVFP2)
		Improving quality of living condition (PPVFP3)
		Well organized and managed well (PPVFP4)
		Instructed by great leader (PPVFP5
	Negative perception of Tanjungwangi village fund program (NPVFP)	Increase dependency on government aid (NPVFP1)
		Trigger social strife/social conflict (NPVFP2)
		Intensify inequality (NPVFP3)
		Increase source of fraud/corruption (NPVFP4)
	Participation in Saemaul Movement Project in Tanjungwangi (PGSP)	Fully Informed about Saemaul Movement Project (PGSP1)
		Participate to attend meeting project (PGSP2)
		Sharing idea and opinion in the project (PGSP3)
		Making contribution implementation project (PGSP4)
		Getting advantage and benefit of Saemaul Movement Project (PGSP5)
	Positive result of Saemaul Movement Project in Tanjungwangi village (PRGSP)	Increase the number of job (PRGSP1)
		Increased earnings/income (PRGSP2)
		Improved quality of living condition (PRGSP3)
		It increase public awareness and concern about development (PRGSP4)
		It improves perception of well-being (PRGSP5)
	Negative result of Saemaul Movement Project Tanjungwangi village (NRGSP)	Increase dependency on government aid (NRGSP1)
		Trigger social strife/social conflict (NRGSP2)
		Intensify inequality (NRGSP3)
		Increase source of fraud/corruption (NRGSP4)

IV. RESULT AND ANALYSIS

1. Result

Questionnaire's survey employs Simple Random Sampling, in which the researchers select a subset of participants from a larger population at random. Every individual in the population has probability of being chosen. There are 99 participants from this research study, as indicated in Table 7, with diverse personal feature profiles. The participants ages ranging from 17 to 80, with participants aged 36 to 45 years old accounting for the majority of the survey's 46 participants. There were additional 23 people aged 46 to 55 who took part in the survey. This result is close to the average population of Tanjungwangi village, which has individual who are productive between the age of 36 and 45 years old. About gender, there are 79 male participants, which is higher than the number of female participants, with a ratio of 79 to 20 participants. Senior high school, with 43 participants, is followed by junior high school, with 34 participants, elementary school is 14 participants, and undergraduate level, with only three participants (〈Table 7〉).

The most prominent employment among participants is farm worker (34 participants), pursued by entrepreneurship (27 participants), and trader (13 participants). The distribution of participants' occupations signifies the community in that terms of the ratio of farmworkers and entrepreneurship. A total of 87 participants were married.

The descriptive statistics of the survey will describe first in this section. The survey collects responses on four topics: participating in Saemaul Movement Project, Saemaul Movement Project Results, Village Fund Program Perception, and Village Fund Program Participation. The responses extend from Very Agree (VA), Agree (A), Neutral (N), Disagree (D), and Very Disagree (VD) (〈Table 8〉).

However, the results of NRGSP4 and NPVFP1, which represent the Village Fund Program's negative result in terms of rising inequality and the Saemaul Movement Project's negative result in terms of expanding inequality, respectively, show an unexpected conclusion. The findings of the two constructs appear to support the idea that both community development programs promote inequality among

〈Table 7〉 Profile of respondents in Tanjungwangi village

Variable		Frequency	Percentage
Age	< 25	6	6.06
	26 - 35	14	14.14
	36 -45	46	46.46
	46 - 55	23	23.23
	Above 56	10	10.1
Gender	Female	20	20.2
	Male	79	79.9
Education	Elementary	21	21.2
	Junior high	34	34.3
	Senior high	36	36.4
	Diploma 3	5	5.05
	Undergraduate	3	3.03
Occupation	Student	2	2.02
	Public officer	2	2.02
	Entrepreneur	27	27.2
	Private sector worker	4	4.04
	Army/police	1	1.01
	Farmer	32	32.3
	Manufacturer labor	9	9.09
	Breeder	3	3.3
	Trader	10	10.1
	Other	9	9.9
Marriage status	Unmarried	12	12.12
	Married	87	87.88
Monthly Income	Less than Rp 1,000,000	37	37.3
	Rp 1,000,000 - Rp 2,000,000	35	35.3
	Rp 2,000,000 - Rp 3,000,000	17	17.1
	Rp 3,000,000 - Rp 4,000,000	5	5.05
	More than Rp 4,000,000	5	5.05

〈Table 8〉 Indicator in descriptive statistic

	PGSP1	PGSP2	PGSP3	PGSP4	PGSP5	PRGSP1	PRGSP2	PRGSP3	PRGSP4	PRGSP5
Valid	99	99	99	99	99	99	99	99	99	98
Missing	0	0	0	0	0	0	0	0	0	1
Mean	4.1	3.46	3.53	3.57	3.87	3.74	3.69	3.91	3.97	3.81
Median	4	3	3	4	4	4	4	4	4	4
Mode	4	3	3	4	4	4	4	4	4	4
Std.	0.63	0.73	0.73	0.67	0.75	0.8	0.79	0.55	0.75	0.63
Deviation	0.4	0.54	0.54	0.45	0.56	0.64	0.62	0.3	0.56	0.4
Variance	- 0.08	0.28	0.23	- 0.08	0.05	- 0.85	- 1.06	- 0.82	- 0.4	- 0.85
Skewness	- 0.46	- 0.19	- 0.27	- 0.14	-0.85	1.1	0.59	2.79	- 0.03	1.59
Std. error	0.06	0.07	0.07	0.07	0.07	0.08	0.08	0.06	0.08	0.06
Minimum	3	2	2	2	2	1	2	2	2	2
Maximum	5	5	5	5	5	5	5	5	5	5

	NRGSP1	NRGSP2	NRGSP3	NRGSP4	PPVFP1	PPVFP2	PPVFP3	PPVFP4	PPVFP5
Valid	99	99	99	99	99	99	99	99	99
Missing	0	0	0	0	0	0	0	0	0
Mean	2.36	2.09	2.46	1.62	3.61	3.65	3.93	3.76	3.73
Median	2	2	2	1	4	4	4	4	4
Mode	2	2	3	1	3	4	4	4	4
Std.	0.85	0.82	0.96	0.71	0.77	0.7	0.53	0.59	0.66
Deviation	0.72	0.68	0.92	0.5	0.59	0.49	0.28	0.34	0.44
Variance	0.23	0.39	0	0.89	0.23	- 0.31	- 0.07	- 0.22	- 1.15
Skewness	- 0.49	0.24	- 0.93	0.19	- 0.5	0.05	0.61	0.2	2.82
Std. error	0.09	0.08	0.1	0.07	0.08	0.07	0.05	0.06	0.07
Minimum	1	1	1	1	2	2	3	2	1
Maximum	4	5	4	4	5	5	5	5	5

	NVFP1	NVFP2	NVFP3	NVFP4	PVFP1	PVFP2	PVFP3	PVFP4	PVFP5	PVFP6
Valid	99	99	99	99	99	99	99	99	99	99
Missing	0	0	0	0	0	0	0	0	0	0
Mean	2.48	2.04	2.3	1.74	4.08	3.35	3.4	3.52	3.70	3.80
Median	2	2	2	2	4	3	3	4	4	4
Mode	2	2	2	2	4	3	3	4	4	4
Std.	0.91	0.73	0.92	0.85	0.47	0.63	0.62	0.64	0.54	0.72
Deviation	0.82	0.53	0.85	0.72	0.22	0.39	0.39	0.42	0.29	0.52
Variance	0.8	0.91	1.04	1.84	0.28	0.57	- 0.02	- 0.1	- 0.5	- 0.18
Skewness	0.83	1.48	0.71	4.97	1.54	0.34	- 0.26	- 0.18	0.09	- 0.16
Std. Error	0.09	0.07	0.09	0.09	0.05	0.06	0.06	0.06	0.05	0.07
Minimum	1	1	1	1	3	2	2	2	2	2
Maximum	5	4	5	5	5	5	5	5	5	5

villagers. It is demonstrated by the fact that the mean is more than 3, the mode is four, and the median is four. Nonetheless, the fact that the value of variance and standard deviation are both more than one indicates that this result is not yet reliable) (〈Table 9〉).

Table illustrated that the full model, which includes all variables, is evaluated first, and then the adjusted model is assessed secondly. The Composite Reliability and Average Variance Extracted values must be seen first in the entire model. If the Composite Reliability and Average Variance Extracted values are less than the

〈Table 9〉 Model of assessment

Variable		Full Model			Adjusted Model		
		Outer loading	Composite reliability	Average variance extracted	Outer loading	Composite reliability	Average variance extracted
I. Participation in Saemaul Movement Project			0.856	0.544		0.865	0.675
PGSP1	Fully informed about Saemaul Movement Project	0.630			-		
PGSP2	Participate to attend meeting program meeting attendance	0.758			0.781		
PGSP3	Sharing idea and opinion in the project	0.708			0.784		
PGSP4	Making contribution implementation project	0.810			0.812		
PGSP5	Getting advantage and benefit of Saemaul Movement Project	0.774			0.760		
II. Positive Result of Saemaul Movement Project			0.912	0.674		0.912	0.675
PRGSP1	Increase the number of job	0.842			0.847		
PRGSP2	Increased earnings/ income	0.830			0.835		
PRGSP3	Improve quality of living condition	0.787			0.790		
PRGSP4	Increase public awareness and concern about development	0.795			0.785		
PRGSP5	It improves perception of well being	0.848			0.848		

〈Table 9〉 Continued

Variable		Full Model			Adjusted Model		
		Outer loading	Composite reliability	Average variance extracted	Outer loading	Composite reliability	Average variance extracted
III. Negative result of Saemaul Movement Project			0.822	0.539		0.833	0.624
NRGSP1	Increase dependency on government aid	0.719			0.752		
NRGSP2	Trigger social strife/social conflict	0.845			0.853		
NRGSP3	Intensify inequality	0.721			0.762		
NRGSP4	Increase source of fraud/corruption	0.634			-		
IV. Positive perception on village fund program			0.842	0.528		0.867	0.620
PPVFP1	Increase the number of job	0.807			0.820		
PPVFP2	Increased earnings/ income	0.819			0.838		
PPVFP3	Improve quality of living condition	0.759			0.749		
PPVFP4	Well organized and managed well	0.759			0.739		
PPVFP5	Instructed by great leader	0.388			-		
V. Negative perception on village fund program			0.800	0.523		0.855	0.663
NPVFP1	Increase dependency on government aid	0.326			-		
NPVFP2	Trigger social strife/social conflict	0.866			0.865		
NPVFP3	Intensify inequality	0.795			0.820		
NPVFP4	Increase source of fraud/corruption	0.776			0.754		
VI. Participation in village fund program			0.822	0.454		0.861	0.674
PVFP1	Fully informed about village fund program	0.263			-		
PVFP2	Participate to attend the meeting program	0.740			0.789		
PVFP3	Sharing Idea and opinion about the program	0.813			0.874		
PVFP4	Support and contribute in program implementation	0.779			0.797		
PVFP5	Knowing and understanding the utilization of the village fund program	0.676			-		
PVFP6	Accept Benefit of Village Fund Program	0.617			-		

acceptable limit, outer loadings are considered to eliminate the latent variable from the framework. If Composite Reliability and Average Variance Extracted are high, it suggests the manifest variables have to describe latent variables due to their lower value, considering such elimination non-essential in this circumstance.

As can be observed in the table only Average Variance Extracted value of Participation in Saemaul Movement Project (PVFP1) that is lower than required value (0.263). Therefore, full model need some by removing manifest variable that have Outer Loading's value lower than 0.7. Found out that value Outer Loadings of PPVFP 5 (Instructed by great leader Village Fund Program) and NPVFP 1 (Increase dependency on government aid) are lower than 0.7 that are 0.388 and 0.326 respectively. All Composite Reliability and Average Variance Extracted calculated using the adjusted model excluding PGSP1, PVFP1, PVFP5, and PVFP6. All latent variables had extracted values greater than 0.7 and 0.5, respectively. It indicates that every variable remains valid and reliable. Therefore, when the outer loadings are less than 0.7, the manifest variable doesn't have to be omitted.

After the evaluation of the model, the next step is the construct evaluation. Constructed assessments consist of Collinearity concerns, R Square, Path Coefficient, F Square, and Q Square. Measuring the value of VIF is used to assess collinearity concerns. 〈Table 10〉 shows the outer model's VIF outcomes. PRGSP5, PRGSP1, and PRGSP2 are the only three latent variables with a VIF value greater than 2.

〈Table 10〉 Outer model of VIF result

Latent variables	VIF	Latent variables	VIF	Latent variables	VIF
PGSP1	-	NRGSP1	1.261	NPVFP1	-
PGSP2	1.651	NRGSP2	1.480	NPVFP2	1.807
PGSP3	1.614	NRGSP3	1.460	NPVFP3	1.512
PGSP4	1.738	NRGSP4	-	NPVFP4	1.402
PGSP5	1.555	PPVFP1	1.842	PVFP1	-
PRGSP1	2.648	PPVFP2	1.795	PVFP2	1.441
PRGSP2	2.895	PPVFP3	1.611	PVFP3	1.854
PRGSP3	1.827	PPVFP4	1.701	PVFP4	1.541
PRGSP4	1.736	PPVFP5	-	PVFP5	-
PRGSP5	2.463				

(2.463, 2.648, and 2.895). It signifies that there is a difficulty with collinearity between the two variables. Therefore, the value is still less than 5, the concern is not substantial, and the model can be released.

The R square measures a model's ability to articulate its independent variable. 〈Table 11〉 also reveals that the framework in this study is invalid at attempting to explain the variance of the dependent variable. The only difference that has been well-explained is Village Fund Program for negative perception (0.529). Around 40% of the variance in positive perceptions of the Village Fund Program and participation in the Village Fund Program accounted for it. Although for positive and negative Saemaul Movement Project results indicate a weak clarification of variance of.0.141 and 0.050 in each.

The justification of a low R Square is prevalent in experimental studies, and this research is complete to look into the possibilities of how involvement in the Saemaul Movement Project affects participation in the Village Fund Project. The inner model path coefficient, as well as the t-statistic, p-value, and f square, are illustrated in 〈Table 12〉. The path coefficient indicates the direction of the correlation meanwhile, the t-statistic and p-value indicate the significance of the correlation. F squared depicts the size of the independent variable's effect on the dependent variable. These five significant positive correlations can be detected using the t-statistic and p-value. The first is involvement in the Saemaul Movement Project and the Village Fund Program, both of which have a p-value of 0.00 and a path coefficient of 0.620. Therefore, suggests that participants who take part in the Saemaul Movement Project are more willing to engage in the

〈Table 11〉 R square in model constructed

Variable	R square	Adj R square
Participation in Saemaul Movement Project		
Positive result of Saemaul Movement Project	0.141	0.132
Negative result of Saemaul Movement Project	0.050	0.040
Positive perception on village fund program in Indonesia	0.440	0.423
Negative perception on village fund program in Indonesia	0.529	0.514
Participation in village fund program in Indonesia	0.460	0.435

〈Table 12〉 Inner model path coefficient

Hypo-thesis	Path	Path coefficient[1]	T-statistics[2]	P-value[3]	F-squared[4]	Decision
H1	PGSP → PVFP	0.620	6.545	0.000	0.45	Significant
H2	PGSP → PRGSP	0.375	3.939	0.000	0.167	Significant
H3	PGSP → NRGSP	- 0.224	1.386	0.166	0.0527	Not significant
H4	PGSP → PPVFP	0.409	4.876	0.000	0.2416	Significant
H5	PGSP → NPVFP	0.266	2.444	0.015	0.1214	Significant
H6	PRGSP → PVFP	- 0.158	1.850	0.065	0.323	Not significant
H7	PRGSP → PPVFP	0.364	4.928	0.000	0.2014	Significant
H8	PRGSP → NPVFP	0.221	2.925	0.004	0.0881	Significant
H9	NRGSP → PVFP	0.240	2.353	0.019	0.0491	Significant
H10	NRGSP → PPVFP	-0.103	1.282	0.201	0.0180	Not significant
H11	NRGSP → NPVFP	0.667	6.509	0.000	0.8897	Significant
H12	PPVFP → PVFP	0.290	3.112	0.002	0.0811	Significant
H13	NPVFP → PVFP	-0.188	1.906	0.057	0.0286	Not significant
Hypo-thesis	Path		Path Coefficient	T-Statistics	P-Value	Decisions
H14	PGSP → PRGSP → PVFP		- 0.059	1.457	0.145	Not significant
H15	PGSP → NRGSP → PVFP		- 0.053	1.089	0.276	Not significant
H16	PGSP → PPVFP → PVFP		0.118	2.592	0.009	Significant
H17	PGSP → NPVFP → PVFP		- 0.049	1.476	0.140	Not significant
H18	PGSP → PRGSP → PPVFP → PVFP		0.0396	1.952	0.051	Not significant
H19	PGSP → PRGSP → NPVFP → PVFP		0.015	1.338	0.181	Not significant
H20	PGSP → NRGSP → PPVFP → PVFP		0.006	0.715	0.474	Not significant
H21	PRGSP → NRGSP → NPVFP → PVFP		0.028	1.010	0.312	Not significant

[1] Path coefficient: In PLS path analysis the significance of the path coefficients can be tested by the bootstrap algorithm. The number of bootstrap subsamples were 5,000 based on (Hair et al., 2011). It can be stated that all of the paths are significant.

[2] T statistic: The value was to indicate the dependent variable (Endogen variable) significant (>1.96) or not significant (<1.96).

[3] P value: P value test. To conduct a test of the hypothesis that $\beta > 0$, at the 0.05 significance level (i.e., 1-95%), we calculate the one-tailed P value associated with the path coefficient.

[4] F square: is effect size (> = 0.02 is small; > = 0.15 is medium; > = 0.35 is large). f-square measured variance explain each exogenous variable in the models.

Village Fund Program.

With a p-value of 0.001 and a path coefficient of 0.375, involvement in the Saemaul Movement Project has positive effects on the project's results of Saemaul Movement (PGSP→PRGSP). Furthermore, the positive outcome of the Saemaul Movement Project will boost participants' positive perceptions of the Village Fund Program, as evidenced by the Positive Result in Saemaul Movement and Positive

Perception on VFP (PRGSP→PPVFP) with a p-value of 0.00 and path coefficient of 0.364. As a result of the positive perception of the Village Fund Program, more people will get to participate in it. Positive Perception on VFP Participation on VFP with a p-value of 0.081 and a path coefficient of 0.290 validates this. Negative Result in Saemaul Movement to Negative Perception on Village Fund Program (NRGSP→NPVFP), on the other hand, with a p-value of 0.889 and a path coefficient of 0.667, demonstrates that negative outcome will lead to an increase in negative perception in the Village Fund Project and indicates the Village Fund Program have social impact in creating dependency problem on government aid.

In accordance with the 〈Table 12〉, indirect impact of Saemaul Movement involvement on Village Fund Program participation via mediator variables such as Saemaul Movement in positive or negative outcomes, positive or negative perceptions of Village Fund Program is not significant. However, with a p-value of 0.009 and a path coefficient of 0.118, the mediating impact between the positive perception of the Village Fund Program and the participation in Village Fund Program have significant result.

As specified by (Cohen, 1988) claimed that f-squared values of 0.02, 0.15, and 0.35 represent small result, medium result, and large result of impacts of an exogenous latent variable on an endogenous latent variable, respectively. If the effect size is smaller than 0.02 then there should be no effect. As a result of the f-squared values of 0.45 and 0.88, it can be deduced from 〈Table 13〉 that the results of the Saemaul Movement Project have a strong positive and negative impact on perceptions of the Village Fund Program. Furthermore, a negative Saemaul Movement result has a significant impact on negative perceptions of the Village Fund Program (0.88).

2. Discussion

The participation experience in the Saemaul Movement Project has a positive influence to Tanjungwangi Residents' participation in the Village Fund Program, according to data analysis utilizing the Partial Least Square-Strutural Equation Model. Villagers are more inclined to join in the Village Fund Program if they are involved in the Saemaul Movement Project. This section delves into the how and

〈Table 13〉 Comparison Saemaul Movement project and village fund program from 2015-2018

	Period	Saemaul Movement Project in 1970-1979	Village fund program (2015 - 2018)
Overall	Objective	Enhance the quality of life through poverty alleviation	1. Improving public services in the village
			2. Poverty alleviation
			3. Promote rural economy
			4. Improving Inequality development gaps in the villages
			5. Strengthening rural communities as subjects of development
	Effectiveness	Transformation from recipient country to ODA (Official Development Assistance) country	ODA recipient and contributed in SDGs (Sustainable development goals)
Self-help approach	Principle	Self help, diligence, and cooperation	Recognition, togetherness, subsidiarity, diversity, mutual cooperation, kinship, deliberation, democracy, independence, participation, equality, empowerment, and sustainability.
	Beneficiaries	Rural areas will be the initial focus, followed by urban regions for a nationwide program.	All of the villages in province, in regency, in city all over Indonesia
		Villagers participation in large numbers	Villagers participation in large numbers
	Financial resources	Government support & self-sufficiency	Government fully funded supported
Institutional coordination	Stakeholder engagement	All main stakeholders were involved and participated in the planning, execution, and evaluation stages.	From planning, implementing, administration, reporting and accountability
	Linkages among institutions	There are strong vertical and horizontal links between the institutions.	Weak in vertical approach and Strong in horizontal approach between institutions
	Lead agency	Ministry of home affairs	Ministry of Finance, Ministry of Village, Ministry of Home Affair
		At the local level, Saemaul Movement has an administrative agency and a local council.	Local government in the city and regency

〈Table 13〉 Continued

	Period	Saemaul Movement Project in 1970-1979	Village fund program (2015 - 2018)
Implementation approach	Approach	Approaches from top-down and bottom-up	Approaches from top-down and bottom-up
	Project design	The president launched a national policy frameworks for community (village) development.	Medium Term National Development Planning (RPJMN) for all of village in Indonesia from 2015 until present
	Strategy	Community participation and decentralized program	Community participation and decentralized program
		Project implementation have four step to do.	The implementation of the project have two steps
		According to the growth level of the community, it was classified as a basic, self-developing, or self-reliant village.	Based on: number of villagers, rural poverty rate, village area, and the geographical difficulty of the village.
	Project	The government suggests 40 projects, which the villagers contribute to, however the villagers select which improvements are necessary for the community.	In 2018 the project was implemented in 33 provinces, in 434 cities, 73.218 villages, total allocation 60 Trillion Rupiah
		The program's focus was on reliability and long-term sustainability. Projects with a low chance of succeeding and a significant output and result were applied first, followed by the hard ones.	In 2015-2016 project with high return of outcome in 2015-2016:
			- Village road 95.2 thousand km,
			- Bridge 914,000 meter
			- Waterways 22.616 unit
			- Revolution village 1.338 unit
			- Village health clinic 4,004 unit
			- Village market 3,106 unit
			- Draw well 19.485 unit
			- Drainage and Irrigation 103,405 unit
			Project have high risk in implementation, however supervising by Audit Board Agency

why of this kind of positive influence. Saemaul Movement has a positive effect on Tanjungwangi Village, as evidenced by the positive effect of the Saemaul Movement Project on the Village Fund Program.

This study indicates that involvement in a community development program has a significant impact on the program's outcome. Participation is critical to the community development program's success. It helps to improve the livelihood of a community by motivating individuals to help themselves. As a result, residents will benefit unless if they join the community development program. Villagers' perceptions of the Village Fund Program variable have a positive influence on the outcome of the Saemaul Movement Project variable. Villagers were encouraged to be optimistic about the Village Fund Program after receiving a positive effect from the Saemaul Movement Project. Villagers have shown how a community development program may help them live a better life through the Saemaul Movement Project.

Due to the positive outcome of the Saemaul Movement Project and positive opinion of the Village Fund Program, the overall impact of the indirect effect is methodically being insignificant. This discussion will concentrate on the direct effect of the Saemaul Movement Project's participation in the Village Fund Program, as well as the relatively little indirect effect of the Saemaul Movement Project's participation in the Village Fund Program.

1) Analyze Comparison Saemaul Movement Project in 1970-1979 and Village Fund Program in Indonesia

Implementation of Saemaul Movement and Indonesia Village Fund have strengths and weaknesses to overcome poverty problem. Many aspects must be improved considerably to be a successful program to achieve the goals and outcomes in the future and sustainably (〈Table 13〉).

2) Saemaul Movement Project and Indonesia Village Fund Program in Harmonization

Through a case of direct influence, the Saemaul Movement Project and the Village Fund Program are both community development programs that follow an identical pattern. As a result, participants will become accustomed to the program and engage in similar tasks as they did in an alternative program. Furthermore,

because both programs work in a comparable area, there are opportunities to harmonize the programs. This is demonstrated by the Saemaul Movement Project's plan to build a multifunctional building and a fish feed production house in Tanjungwangi. The Tanjungwangi village administration asked to participate in these events by Saemaul Global Foundation. According to findings, the Tanjungwangi village administration provided 120 million Rupiah from local funds to the building project. Saemaul Global Foundation granted responsibility and authority to Tanjungwangi Village-Owned Enterprises once the building and Fish Feed Production House completed.

The mechanism of the Tanjungwangi village Saemaul Movement Project corresponds to the 2015 UNDP-proposed Inclusive Sustainable New Community model. Harmonization activity in the Saemaul Movement Project and the Village Fund Program is a practice in policy entry strategy. The Saemaul Movement Project does not have to establish a new program in the receiving country, instead it is encouraged to identify and harmonize policies that are compatible with the Saemaul Movement principle.

3) Indirect impact indicates the process of mindset transformation

The indirect influence from Saemaul Movement to Village Fund Program moderated by the outcome of Saemaul Movement and the perception of the Village Fund Program. This illustrates that the Saemaul Movement Project has influenced the Village Fund Program thru the learning system, indicating a shift in mindset. Villagers gain knowledge through training, development projects, and, most importantly, participation in the Saemaul Movement Project. Job possibilities, more earnings, improved living standards, and enhanced awareness of improvements are outcomes of the program. As a result, participants' perspectives on community development change, and their positive opinion of Village Fund evolves, encouraging them to engage the Village Fund Program. Perception is positively associated with the positive impact of the Saemaul Movement Project, referring to the PLS-SEM. The accomplishment of the Saemaul Movement Project will give Tanjungwangi residents a positive perspective of the Village Fund Program. This demonstrates that Saemaul Movement's efforts to change mindsets have significantly increased residents' understanding of the community development program. With a positive perception, means villagers have slightly elevated expectations for the Village

Fund Program. Indirect Effect indicates the process of mindset transformation. The findings of this study indicated that the Saemaul Movement participation on Indonesia Village Fund Program made a significant contribution to village development from an economic, social, and political aspect. In terms of economics, accessibility and efficiency are improving. Social impacts can boost social capital and have an impact in the political domain, offering potential opportunities for community participation in development.

According on this result, the concept of the Saemaul Movement can be used to improve involvement in community development programs. Community development as an education program is a key aspect of the Saemaul Movement for increasing participation. Throughout this concept, education for villagers' mindset transformation is done through field projects rather than only teaching in the class. Sharing knowledge from the Saemaul Movement with Village Fund Program policymakers may be a good way to start implementing the Saemaul Movement concept into the Village Fund Program. According to the findings of this study, beneficial perception has a positive impact on participation in the Village Fund Program. Based on the research findings, the government should strengthen the reputation of the Village Fund Program to encourage people to participate. Saemaul Movement as a technique for improving perspective, which is to create the Village Fund Program as an academic program. Those activities of learning, coaching, and capacity development are carried out in the fields rather than in the classroom. Executing projects, gaining a satisfying perception, and reaping the benefits are all aspects of education. Residents may only comprehend the necessity of involvement in the Village Fund Program after experiencing the benefits of great efforts. Residents are inspired to participate in future community development program activities of their experiences with it.

V. CONCLUSION AND RECOMMENDATION

1. Conclusion

Using the PLS-SEM, this study investigates the impact of Tanjungwangi villagers' involvement in the Saemaul Movement Project on Indonesia Village Fund Program in terms of improving the relevance of the Saemaul Movement Principle in

Indonesia. A Likert scale questionnaire was used to collect data on Tanjungwangi villagers' perspectives on their participation in the Saemaul Movement Project and the Village Fund Program, as well as the results of the Saemaul Movement Project and their assessment of the Village Fund Program.

The impact of involvement in the Saemaul Movement Project on participation in the Tanjungwangi Village Village Fund Program was measured using a quantitative formula in this study. The quantitative research method is based on objective outcomes resulting from numerical data collected via a Likert scale questionnaire. The data from the questionnaire will be evaluated using the Partial Least Squares-Structural Equation Method, a descriptive statistical technique.

The Saemaul Movement Pilot Project in Tanjungwangi Village has direct and indirect positive effect on the Village Fund Program concerning involvement, according to the findings of this study. Direct impact occurred as a result of harmonizing that both community engagement and the indirect effect occurred as a result of positive aspects that tends to result from the execution of the Saemaul Movement Project and enhanced perspective of the Village Fund Program, which signifies a perspective change effort. Improved implementation strategy of the Saemaul Movement Project, attempting to bring a positive value that supports development such as self-help, diligence, cooperation, and perseverance in performing the Saemaul Movement Project are the factors that have a positive impact on participation in the Village Fund Program.

2. Recommendation

Following the examination of the influence of involvement in the Saemaul Movement Project on participation in the Village Fund Program, this section will provide recommendations for improvements in participation in community development programs in Indonesia, particularly the Village Fund Program. Given the favorable impact of the Saemaul Movement Project on Village Fund Program participation, the sustainability of the Saemaul Movement Project in Indonesia is a smart plan. With the help of the Saemaul Movement Project, the Village Fund Program in Indonesia can be strengthened. Decision-makers in the Village Fund Program can gain knowledge more about the Saemaul Movement Project's

implementation in enhancing the Village Fund Program's application. The success narrative and expertise of the Saemaul Movement Project will be shared with a larger audience in Indonesia, allowing more people to learn about community development.

Scaling up the Saemaul Movement Project, which has had a beneficial impact at the local level in some pilot villages, should be explored in the coming year. Enhancing the transmission of the Saemaul Movement Project's achievements by people and the government, from the local levels to the country levels, demonstrate the project's genuine benefits, will encourage the village to engage in Saemaul Movement willingly. The organizers of the Saemaul Movement Initiative in Indonesia, on the other hand, should use a competitive system to carry out the project, with the best village receiving additional funding.

The discovery that the Saemaul Movement Project in Tanjungwangi Village influences participation in the Village Fund Program through favorable Saemaul Movement results and positive perceptions of the Village Fund Program demonstrates that the effect is mediated by residents' thinking. As a result, the Village Fund Program should be conceived as a teaching tool. Villagers' awareness of the advantages of community development programs, as well as their willingness to participate in them, must be maintained through all events. Furthermore, Saemaul Movement's information sharing with policymakers should be stepped up in enhancing the concept of Indonesia's Village Fund Program and increase participation rates. Increase collaboration between the Saemaul Movement Project and the Village Fund Program, as both are community development initiatives.

Furthermore, because the limitation in this study is only one village, research in another location using the different method could provide a different result. The conclusions of this study not to be accepted as a general conclusion in other regions. As a result, research in a different location will improve our overall understanding of community participation. To obtain an accurate result, the addition of more respondents should be considered. Some recommendations for ideal sister city cooperation, as well as future research, include:

1. Conducting additional research into the case study between the two cities in order to make it more sustainable in the future. It will be determined whether there are any improved adjustments in improving the collaboration process

based on the scope of different village projects and the evaluation of implementation in the first village. This can contribute to the central development village development cooperation strategy in a positive way.

2. Conducting comparative study in terms of completing cooperation between Indonesia and South Korea by examining at sister-city and sister-province cooperation in other village or country.

In the future, rural community development projects should be directed to community needs (needs assessment), with active community and local government participation, so that the program may be expected to be sustainable. Program integration must be adequately designed, involving technical offices/sectoral agencies in the regions, to eliminate ego sector so that the program can run successfully and profitably, reducing people's reliance on government social assistance. Program starting institutions and program implementing agencies must be supported by clear and operational regulations in order for the program to function dynamically.

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Original Article

The Impact of Flood Damage on Farmers, Agricultural Sector and Food Security in Laos: A Regional Case Study of Champhone District, Savannaket Province

Lattana Soulibouth*
Hwa Seok Hwang**
Dong Hyun Shin***

Abstract

This study is an assessment of the impact of flood damage on farmers, the agricultural Sector, and food security in Laos, specifically in Champhone District, Savannakhet Province, a central part of Lao PDR. This research analyzed the perception level of flood impacts on the farming community, evaluated the flood disaster management of food security in agriculture, and determined the contributed potential strategy in minimizing the negative impact of floods on the agriculture sector and the country's food security. The study collected and analyzed the data from 110 respondents (farmers) from the Champhone district. Most of the respondents suffered individual losses from the flood damage. The respondents also took about two to five months to restore their farms after the floods destroyed their farmland.

Key Words: Flood Impacts, Natural Disaster, Food Security, Climate Change

* **Main Author:** Master's Course, Kyungpook National University / Lattanasoulibouth@gmail.com
** **Co-author:** Professor, Kyungpook National University / hhs2129@knu.ac.kr
*** **Corresponding author:** Professor, Kyungpook National University / dhshin@knu.ac.kr

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Ⅰ. INTRODUCTION

Agriculture is important to humans all around the world. It is the basis of life, from the food we eat to the clothes we wear, which is a major contribution to the economy. Agriculture serves as the backbone of a nation's economy. Activities ranging from raising livestock to growing crops are incorporated into agriculture. Food security is very important in feeding people all over the world (Agriculture Business Idea Nigeria, 2019). Natural disasters, especially floods, are often caused by climate change. Farmers and agriculturists face flood impact in different forms, like loss in production, damage to agricultural infrastructure, and even psychological distress for farmers. This results in the agricultural sector being very vulnerable, affecting the food security of every country in the world (Muhammad et al., 2018).

Malnutrition caused by hunger can lead to chaos. Flood disasters will have an impact on the mental health of the victims, the country's socio-economic status and food security. This will then result in instability in the human population and the socio-economical economy of the nation. Flood risk causes hardship in rural areas due to its impact on agricultural productivity.

The Lao People's Democratic Republic (Lao PDR) is highly susceptible to climate change and natural hazards, particularly floods and drought conditions, which seriously affect the country's agricultural production. Although gradually declining in terms of its contribution to GDP in recent years, agriculture continues to play a major role in Lao PDR's economy. Champhone district, located in Savannakhet Province, and its surrounding agricultural lands are located along the bank of a river, an area which is prone to flooding. Since 1992, villagers have experienced four major floods, the most recent in 2015 when 106 hectares of agricultural land were flooded, damaging more than one third of cropped land. Four years earlier, in 2011, the village lost all its crops during a major flood that persisted for three months. Almost 400 hectares of farm land are potentially vulnerable to flood damage in any given year, and the water level can remain persistently high for months at a time.

Strong southwesterly winds cause flash floods in Lao PDR each year from August to September. It is most common in the central and southern provinces. In recent years, Laos has been severely affected by floods. Savannakhet Province produces the

largest amount of agricultural production in Laos compared to other provinces, and is also the province most affected by disasters, especially floods.

The cause of flooding is low agricultural land. The increase in rainfall due to the increase in rainfall during the rainy season increases the flow of water, causing landslides and landslides. The Champhone district is already experiencing this problem. Increased soil and landslides cause more cement to flow into the river, widening the water, creating shallow water barriers, exacerbating flooding, prolonging and damaging rice production, houses, irrigation, infrastructure and roads.

Champhone District, Savannakhet Province, located in the central part of Lao PDR, about 45 km^2 from the provincial capital, with a total area of about 1,114 km^2 and a population of 21,042, is one of the districts in Savannakhet Province that is affected by floods every year. It adversely affects agriculture, farmers, and food security (PAFO Report, 2020).

The way of life of the people in Champhone district is mainly based on natural resources. Therefore, there are risks from climate change and floods. Cultivation is the main livelihood and economic activity of the people in Chophone district. The main crops grown in the district are rice and soybeans. Champhone district produces rice not only for consumption but also for export to neighboring districts and provinces. Livestock production is a subsistence activity and an important source of income after crop production. However, agriculture in Champhone district is greatly affected by climate change, especially by floods, which have a direct impact on crop production and livestock. The people in Champhone and the surrounding districts are at high risk of food insecurity (National Economic Research Institute NERI, 2017).

Champhone district is an important economic district for rice and food production in the Savannakhet province, central Lao PDR. The livelihood of many people depends on the food produced in the district, such as rice, vegetables, meat, and fish. Floods affect the Chomphon district every year with increasing severity due to declining forest cover and increased rainfall, on some occasions lasting more than 15 days (National Economic Research Institute NERI, 2017).

Data gained from this study may be helpful in the analysis of the impact of flood damage on farmers, the agricultural sector, and food security in Lao PDR. It is important to know the nature and extent of the effects of flooding as a basis

for developing strategies to address the negative effects of floods. It can also serve as a basis for developing primary policies and proposing funding from other development partners in the future.

1. Statement of the Problems

Regular flooding occurs due to heavy rainfall with moist-westerly winds blowing from the Indian Ocean from mid-May to September and due to the location of major rivers. Some floods are also intensified by tropical storms which reach the country from the South China Sea. The main factors determining the severity of flood impacts relate to inadequate protection along the critical flooding points and poorly developed water control gates. According to the World Food Program (WFP), 16 flood events were reported during the period between 1996-2002 of varying magnitudes and durations. In recent years, recurrent flood events have caused severe damage to the agricultural sectors, particularly to rice production (Ministry of Agriculture and Forestry, Laos, 2014-2016).

1) Flood impact on psychology

The psychological impact on flood victims is not only profound and long-lasting, but also far greater than the economic impact. The rainy season comes every year, making the flood victims in Chaphone District, Savannakhet Province, feel uncomfortable and unsafe.

2) Flood impact on food security

Floods are one of the main causes of hunger, food insecurity and malnutrition in the world. When floods occur, people try to cope by cutting back on diets, selling livestock and tools, and keeping children out of school. These methods can have long-term effects, putting people in a cycle of hunger and poverty.

Food security for all people in Chaphone district, Savannakhet province can be explained as having access to the basic food they need both physically and economically. Floods have affected the agricultural sector in terms of damaged farmlands, reduced yields, and difficulty accessing food for people due to lack of transport systems and roads. People also lack awareness of food access and food availability during flooding.

2. Objectives

This study aims to analyze the level of farmers' awareness of food accessibility, food availability, and food utility. Respondents were those affected by the flooding in recent years and employees operating in the agricultural sector. The results can be used to supplement plans and strategies for the development of the agricultural sector in the Champhone district, Savannakhet province. It also serves as a basis for policy development to seek funding from other development partners in the future.

The purpose of this research is:

(1) To identify the flood impacts on the farming community

(2) To determine the assistance to be provided by the Government after the flood damage

3. Scope of Case Study

The 〈Figure 1〉 is a Geographical scope map for map of Laos.

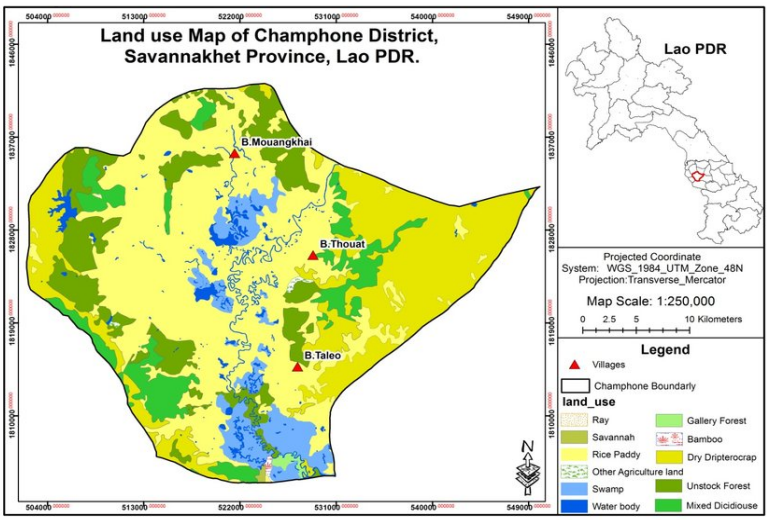
4. Research Methodology

In this study, there were 110 farmers selected as respondents. The selected respondents are those farmers affected by the floods in Champone district, Savannakhet province. The data was collected through a survey form that involves the four sub-sectors of agriculture: agriculture, livestock, fisheries and food crops. A face-to-face approach to the respondents was conducted to gather the information. The designed questionnaire is a multiple-choice test, which is composed of 41 questions to be completed within 15 minutes.

The Questionnaire Instructions are divided into seven sections (Financial impact of flood information; Damages and impacts of flood on respondents and their farms information; Time taken to stabilize farm information; Perceptions of accessibility, availability, and utility of food security information; Perception level toward food accessibility; availability and utility in affected areas; and What kind of farmers do you want the government to support?).The collected data in this study was used to analyze the impact of flood damage on farmers, the agricultural

〈Figure 1〉 Geographical scope map: Map of Laos





sector, and food security. The data will also be used to analyze the level of knowledge of each farmer.

The collected data in this research was analyzed using the Statistical Set for Social Sciences Software (SPSS) program to generate survey statistics: frequency distribution, percentage, reason, and standard deviation.

Ⅱ. LITERATURE REVIEW

Climate change is a global challenge to food security. Food security in the agricultural sector has faced challenges such as changes in rainfall patterns, droughts, floods, and others. The United Nations (UN) provided statistics that show that among natural disasters, floods and storms cause the greatest loss and damage in modern society. The level of damage arising from floods and storms only during the last decade has been higher than damage from earthquakes. The damage from earthquakes is less due to the improvement of construction methods and others, but unfortunately, the natural trend of development in some countries, such as Iran, has caused damage to the environment and natural resources, and the damage from floods is in progress (Norouzi & Taslimi, 2012).

The floods have severely affected farmers' livelihoods, post-flood food shortages have increased food insecurity, confirming that the growth and development of crops on farmland is affected by floods, floods make it impossible for plants to absorb the nutrients needed for proper growth, floods cause erosion or loss of nutritional status of community crops. It shows that floods have reduced the efficiency of agricultural land in terms of food production, resulting in food insecurity, reduced income, affecting household investment or occupants, and loss of livelihoods and sources of income from the floods. It makes it difficult to take care of family members, especially children. In addition, those living in flood-prone areas face poor living conditions (Week & Wizor, 2020).

1. Definition and Models of Impact Flood in Agricultural Sector and Food Security

The agricultural sector has a role to play in ensuring food security, especially in

developing countries, but the biggest challenge for this sector is climate change. The agricultural and food systems around the world are facing the problem of climate change, causing floods and other phenomenon resulting in the decrease of soil fertility and poor agricultural yield. This climate change problem is critical to the agricultural sustainability and food security of developing countries (Apata et al., 2009).

According to Wang et al., 2018, the floods are one of the major natural disasters affecting farmers, the agricultural sector, society and the economy. The awareness of flood risk is beneficial to farmers in implementing management in flooded areas. However, flood risk awareness suggests that flood experience, education, and awareness of flood perceptions, attitudes and perceptions of people in response to such incidents can be helpful in improving farmers' understanding of flood response.

The reshuffle of the Government of Lao PDR has led and ensured an effective, timely response to the long-term effects of floods and mitigation of agricultural risks and food insecurity.

2. Problem of Impact Flood in Agricultural Sector and Food Security

Malaysia is also one of the countries facing the effects of climate change, which has led to natural disasters, especially floods. The country conducted an analysis last year on the level of awareness of the impact of floods on agricultural communities affected by floods. The findings confirm that most of the damage caused by the floods was RM1,001 million or 240,625 million USD or more. It will take two to five months for the farmer to recover emotionally and mentally, which is the same period of time that is needed to carry out the farmer's aspirations activities on a regular basis (Hazran et al., 2017).

The agricultural sector in Laos PDR is vulnerable to floods. Floods during the planting or harvesting seasons can cause significant damage to farmland and crops. floods cause huge damage in the plains of Laos, especially in the Chaphone district, Savannakhet province, where it occurs every year. As a result, farmers are facing higher risk when it comes to decision-making, whether to postpone the planting or not, resulting in a decrease in production, which greatly affects the

level of food security in the country.

Climate change causing flooding is the major constraint and barrier to achieving agricultural food security in Lao PDR. Floods severely affect farmers because they greatly damage the farmlands and crops, resulting in limited access to food, which also affects the food availability and food security of the country.

3. Framework for Disaster Management

To prevent, control, and mitigate the effects of natural disasters, such as floods, particularly in agricultural production areas, the following steps must be defined: Integrate natural resource management, prevention, and control into the agriculture development plan at every level and in each period to apply them all at the same time. To cooperate with international organizations to develop workplans for disaster risk reduction in the agriculture area. This aims at technical capacity building in reducing risks, disaster management planning, and coordination and exchange of information with other relevant parties by improving mechanisms, roles, and duties of relevant sectors, and providing instructions to implement workplans systematically within operational frameworks for each period, such as short-term (preparedness for handling disasters), short-to medium-term (disaster risk reduction), and medium-to long-term (adaptation or resilience to climate change).

The Agricultural Development Strategy sets out the development goals for 2025 by focusing on flood-adapted agriculture and focusing on small-scale land needs, ensuring food security and improving farmers' livelihoods. In order to achieve this long-term strategy, the expected specific goals are: Ensuring food security is a top priority in improving agriculture and livestock.

Food security in the event of a disaster is a major challenge for the agricultural sector. The government needs appropriate policies to promote food security and good nutrition for people in vulnerable areas. Disaster risk and how to deal with it, especially floods, are likely to increase every year.

Access to food is essential for people living in flood-prone areas, and disaster management policies provide emergency relief to the basic needs, food and shelter of flood-affected people. Improving preparedness through farmer-centered flood management, enhancing coordination between communities and governments

at various levels, strengthening community resilience and self-help mechanisms.

Establish a disaster management implementation team at the district level to be a channel of information, local needs, ensure readiness and awareness of urgent needs in flood-affected communities. The key to change in the area of food security is effective policies and in line with disaster management strategies.

III. RESULT AND DISCUSSION OF MODEL ANALYSIS IN IMPACT OF FLOOD DAMAGE

1. Demographic Profile of the Respondents

The demographic profile demonstrates the demographic data of the respondents such as gender, age, level of educational qualification, years of agriculture and farming, main occupation, and income.

The gender distribution of the respondents is shown in 〈Table 1〉. Provides information on the gender distribution of the respondents in the study. The majority of the respondents are male, which is composed of 70.9% of the total, while the female respondents are composed only of 29.1%.

Respondent's age distribution: The results showed that the outstanding age of the respondents who were active farmers was between 31 and 40 years (40%), the second group was between 41-50 years old (26.4%), the second two groups of the respondents composed of the older group (between 51-60 years old) and the younger group (30 years old) were the same at 15%. The last group of respondents, those 61 years old and above, had the lowest distribution at 6.4%.

Demographic data analysis also indicated that the majority of the respondents were educated up to primary level (38.2%), followed by lower secondary level (25.5%) and upper secondary (18%). There were also 15.5% respondents who received further higher education with certificate or diploma level qualifications. The last group of respondents are those farmers who have never been to school (4.5%).

Most of the respondents experienced agriculture and farming for 16 years or above (67.3%), followed by 13-15 years (18.2%). The lowest group experienced agriculture and farming for about 1-4 years (1.8%) only.

〈Table 1〉 Demographic profile of the respondents (n = 110)

Varlable	Category	Frequency	Percent (%)
Age	20-30 years	15	13.6
	31-40 years	46	41.8
	41-50 years	28	25.5
	51-60 years	14	12.7
	>61 years	7	6.4
Gender	Male	78	70.9
	Female	32	29.1
Level of education	Never been to school	5	4.6
	Primary school	52	47.3
	Lower secondary	18	16.4
	Upper secondary	18	16.4
	Certificate/diploma degree	17	15.5
Years of agriculture and farmers	1-4 years	2	1.8
	5-8 years	3	2.7
	9-12 years	11	10
	13-15 years	20	18.2
	16 years and above	74	67.3
Main occupation	Farmers	72	65.5
	Government/private	18	16.4
	Self-working pensioner	9	8.2
	Others	8	7.3
		3	2.7
Monthly income per year	Less than 10,000,000 Kip or US 1,000	47	42.7
	11,000,000-20,000,000 Kip or US 1,100 - 2,000	31	28.2
	21,000,000-30,000,000 Kip or US 2,100 - 3,000	17	15.5
	31,000,000-40,000,000 Kip or US 3,100 - 4,000	8	7.3
	More than 41,000,000 Kip or more than US 4,100	7	6.4

The majority's main occupation of the respondents (64.5%) are farmers, followed by government/private employees (17.3%), self-employed (8.2%) and the lowest percentage of the respondents are those who are pensioners (7.3%) and others (2.7%).

Respondent's Monthly income per year: In terms of economic status, 43.6% of the respondents earned less than 10,000,000 Kip per year. There were also 6.4% of respondents who earned more than 41,000,000 Kip annually.

2. Analysis of Financial Impact of Flood

The financial impact of the flood on the farmers and agriculture sector in Laos can be shown in 〈Table 2〉. This table showed the defining data on the financial impact of floods when it comes to the losses and damage of properties, agri-

〈Table 2〉 Analysis of financial impact of flood

Cost	Percentage (%)	Frequency (n=110)
No losses	14.5	16
Less than 1,000,000 Kip or US 100	33.6	37
1,001,000 - 5,000,000 kip or US 100 - 500	35.5	39
5,001,000 -10,000,000 kip or US 500 - 1,000	10	11
≥ 10,000,000 kip or ≥ US1,000	6.4	7

cultural inputs and facilities and agricultural crops and machineries. These variables were calculated to determine the percentage (in terms of cost or amount of money) of losses and damages in Chaphone District, Savannakhet Province, Laos.

It can be concluded that the majority of respondents most affected by the floods are between 1,001,000-5,000,000 kip or US 100 - 500. However, 14.5% of the respondents did not experience any losses. This is mainly because their farms were not affected by the floods. They also moved their livestock to higher ground and did not grow crops during the rainy season.

3. Analysis of Damages and Impacts of Flood on Respondents and Farms

〈Table 3〉 Shows the findings of the respondents' perceptions on the amount of flood damages and impacts to the farmers and to their farmlands, which were categorized into four levels based on the sort of damage and impact (Not affected, Low, Medium, High). The table shows the three variables with the highest percentages of high-level damage and inter-variance, namely emotion and psychology (32.7 percent), drainage and irrigation (33.6 percent), and crops/livestock variables (35.5 percent). Respondents were emotionally and psychological challenged. Some farmers have shifted to other activities and stopped growing crops during the rainy season due to the lack of response to floods. The young farmers have lost interest in any farming activities because of the floods that damage the farm. Most of the respondents' farms were damaged by the floods, their crops or livestock were severely affected, and their agricultural activities were ruined, as the plants such as bananas, rice, and vegetables are not strong enough to withstand the harm caused by the floods.

〈Table 3〉 Analysis of damages and impacts of flood on respondents and farms

Variables	Not affected		Low		Medium		High	
	%	N	%	N	%	n	%	N
Emotion and psychology	19.1	21	30.9	34	17.3	19	32.7	36
Farm infrastructures	40.9	45	12.7	14	21.8	24	24.5	27
Farm tools and utility	42.7	47	21.8	24	19.1	21	16.4	18
Fertilizer stock	52.7	58	12.7	14	13.6	15	20.9	23
Farm store	47.3	52	17.3	19	16.4	18	19.1	21
Drainage & irrigation	35.5	39	17.3	19	13.6	15	33.6	37
Crops/livestock	24.5	27	20.0	22	20	22	35.5	39
Farm machinery	62.7	69	14.5	16	10	11	12.7	14
Worker	66.4	73	12.7	14	7.3	8	13.6	15

4. Analysis of Time Taken to Stabilize Farm

〈Table 4〉 Illustrates how long respondents took time to get the farms back on track after the flood damaged their farmland. In terms of the emotional and

〈Table 4〉 Analysis of time taken to stabilize farm

Variables	Not affected		Less than 1 months		2-5 months		6-9 months		10-12 months		More than 1 year	
	%	N	%	n	%	N	%	n	%	N	%	n
Emotion and psychology	30.9	34	14.5	16	20.9	23	10.9	12	15.5	17	7.3	8
Farm infrastructures	40	44	10.9	12	19.1	21	12.7	14	9.1	10	8.2	9
Farm tools and utility	50	55	15.5	17	11.8	13	10	11	8.2	9	4.5	5
Fertilizer stock	47.3	52	14.5	16	9.1	10	11.8	13	7.3	8	10	11
Farm store	42.7	47	16.4	18	13.6	15	16.4	18	5.5	6	5.5	6
Drainage & irrigation	33.6	37	19.1	21	16.4	18	11.8	13	10	11	9.1	10
Crops/livestock	28.2	31	18.2	20	23.6	26	20.9	23	3.6	4	5.5	6
Farm machinery	50.9	56	25.5	28	10	11	5.5	6	4.5	5	3.6	4
Worker	64.5	71	11.8	13	7.3	8	6.4	7	4.5	5	5.5	6

psychological aspects of the farmers, the majority of respondents had enough time to re-establish themselves in order to continue the farming operations in crops of livestock in two to five months. Farmers can survive the damage from a flood due to the support and assistance provided by the government.

5. Analysis of Perceptions on Accessibility, Availability and Utility

〈Table 5〉 Shows the flood in the affected area, respondent assessment of food security in terms of food access, food availability, and food utility. The results showed that all the three factors, food availability (M = 2.42), food accessibility (M = 2.36) and food utility (M = 2.697) had a moderate mean score.

The highest mean score (M = 2.61) was given to a statement assessing food availability, "It was difficult to get an adequate food supply after the flood had ended." It can be inferred that while some respondents had adequate food supplies at home, others did not. The statement 'My family and I had to go without food for a few days' (M = 2.10) received the lowest mean score. As a result of this finding, the respondents were able to obtain appropriate food supplies in their area following the storm. In addition, the government of Laos and international organizations were reported to be proactive in offering assistance to flood victims around the country.

The item that measured food accessibility factor, food aid distribution was not within the scope of the family, and because the road was damaged, they could not access the highest average score record (M = 2.63). Understandably, some respondents had difficulty accessing food because their access roads and vehicles were damaged by the floods, resulting in a lack of assistance. There was a minimum average score (M = 2.03) for food. It stated that it was difficult to buy food because the road was damaged and inaccessible. The government, in concurrence with international organizations, has been helping to repair roads so that farmers have access to any support and assistance.

The respondents waited for help from the government and Flood Centres to provide basic equipment and essential supplies for them. The Food Utility Measurement Statement stated that each family was given sufficient cooking utensils that recorded the highest average score (M = 2.85). The findings also indicate that

〈Table 5〉 Analysis of perceptions on accessibility, availability and utility

Statement	Scale					Mean	SD
	1%	2%	3%	4%	5%		
Food availability							
It was difficult to get adequate food supply after flood had ended.	33.6	24.5	7.3	16.4	18.2	2.61	1.533
Raw ingredients for cooking were hard to find around my area.	34.5	26.4	9.1	13.6	16.4	2.51	1.488
Food sources were very limited in my place.	40.9	16.4	8.2	13.6	20.9	2.57	1.617
My family and I had to endure hunger a few days without food.	30	25.5	19.1	17.3	8.2	2.48	1.304
My family and I had to fight to get food every day.	37.3	21.8	20.9	10	10	2.34	1.336
The food supplied did not meet the nutritional needs of my family and I.	51.8	20	7.3	8.2	12.7	2.10	1.440
A lot of food given by flood centre ended up wasted.	47.3	10.9	12.7	20.9	8.2	2.32	1.446
Overall mean						2.42	1.452
Food accessibility							
It was difficult to get food for my family from the flood centre or other sources because there was no vehicle.	38.2	22.7	13.6	13.6	11.8	2.38	1.414
It was difficult for me to buy food because the road was damaged and not accessible.	57.3	12.7	9.1	11.8	9.1	2.03	1.404
Food aid distribution was not within the reach of my family and me because the road was damaged and not accessible.	40.9	10.9	10	20.9	17.3	2.63	1.590
The vehicle that my family and I used was damaged and unusable thus preventing us from getting our food.	42.7	19.1	12.7	10.9	14.5	2.35	1.481
I did not have money to pay the cost of repair of my vehicle to get food.	38.2	22.7	14.5	20	4.5	2.30	1.289
No repair service for damaged vehicle after flood has added problem to us in getting food outside the village.	37.3	17.3	13.6	25.5	6.4	2.46	1.379
Overall mean						2.36	1.426
Food utility							
Daily cooking was difficult because my kitchen appliances had either been damaged or lost.	38.2	20.9	19.1	15.5	6.4	2.31	1.297
Basic equipment for cooking was hard to get.	31.8	21.8	15.5	23.6	7.3	2.53	1.346
Flood centre provided adequate cooking utensils to me and members in my community.	39.1	7.3	8.2	25.5	20	2.80	1.636
Each family was given sufficient cooking utensils.	33.6	7.3	13.6	31.8	13.6	2.85	1.510
Cooking was difficult even with existing equipment because of lack of electricity and gas supply.	26.4	24.5	10.9	36.4	1.8	2.63	1.270
Overall mean						2.62	1.412

Note: 1 = Strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = Strong disagree.

adequate processing equipment and basic utensils, such as stockpiles, condiments (salt, sugar, flour, etc.) were provided to each family after the flood. The lowest average score for this factor was from the statement stated that daily cooking was difficult because the kitchen appliances were damaged or lost (M = 2.31).

6. Analyze of the Perception Level toward Food Accessibility, Availability and Utility in Affected Area

〈Table 6〉 Demonstrates respondents' level of awareness about food accessibility, food availability, and food utility in the affected area. These factors indicate that perceptions at each level, such as food availability, were moderate. Food accessibility and food utility were low.

7. The Farmers Want from the Government to Support

〈Table 7〉 The farmers want the government to support them. It was shown that

〈Table 6〉 Analysis of perception level toward food accessibility, availability and utility

Variables	Frequency	Percentage(%)	Mean	SD
Food accessibility level				
High (3.67-5.0)	33	30	1.88	.832
Moderate (2.34-3.66)	45	40.9		
Low (1-2.33)	32	29.1		
Total	110	100		
Food availability level				
High (3.67-5.0)	23	20.9	2.34	.805
Moderate (2.34-3.66)	27	24.5		
Low (1-2.33)	60	54.5		
Total	110	100		
Food utility level				
High (3.67-5.0)	21	19.1	2.31	.775
Moderate (2.34-3.66)	34	30.9		
Low (1-2.33)	55	50		
Total	110	100		

〈Table 7〉 Analysis of the farmers want from the government to support

Variables	Frequency	Percentage(%)
Seed	32	29.1
Irrigation	11	10
New machine	9	8.2
Finance	10	9.1
Livestock	36	32.7
Infrastructures	12	10.9
Total	110	100

respondents needed government assistance with the highest average scores of animal species (32.7%), followed by plant varieties (29.1%). As flood damage affects crops and livestock most, climate-resilient varieties need to be considered. However, other aid is also important: infrastructure, irrigation, finance, and new machines to ensure food security.

IV. CONCLUSION AND RECOMMENDATION

1. Conclusion

This study was conducted to assess the impact of floods on the agriculture, farmers and food security in Savannakhet province, particularly in Champhone district.

The result of the study shows that the agricultural sector in Champhone district was severely affected by floods, which had a negative impact (directly and indirectly) on the agricultural members of the community. Food security for all people in Champhone district, Savannakhet province can be explained as having access to the basic food they need both physically and economically. However, due to floods, their agricultural sector was affected. It damaged farmlands and reduced yields, resulting in difficulty accessing food for people due to lack of a transport system and roads. The lack of people's awareness of food access and food availability during flooding are also some of the problems identified concerning food security in the area.

Natural disasters, especially floods, are often caused by climate change, which has greatly damaged the agricultural sector in the form of loss in production and damage to farmers' agricultural infrastructure. As a result, the agricultural sector is at risk because of flooding, causing difficulties in agricultural production areas, resulting in declining agricultural yields and risk to food security. The respondents took time to restore their farms after the floods destroyed their farmland. The losses brought by the flood greatly affected their well-being, especially the emotional aspect. Most farmers spent about 2 to 5 months calming their emotions before resuming their farming and animal husbandry activities.

The government of Lao PDR, Ministry of Agriculture and Forestry needs to mitigate the risks associated with adverse and catastrophic impacts of floods. Integrating disaster risk management with a focus on disaster risk reduction measures, linked to poverty reduction, food security, and the challenges posed by climate change, should be prioritized for sustainable agricultural development. The study shows that the majority of the respondents wanted support and assistance from the government sector. The highest assistance needed by the respondents from the government is for the animal species and the plant varieties.

2. Recommendation

Based on the findings, this study suggests that there is a significant need to strengthen farmers' social adaptation to the effects of floods and climate change. The recommendations are as follows:

First, Encourage farmers to make good preparations (such as for raising livestock during floods).

Second, Ensure that farmers have proper flood-resistant storage facilities to mitigate the effects of floods. In addition, extension projects and activities can help farmers rehabilitate their farms after the floods.

Third, Social protection systems and security measures, including compensation transfer mechanisms and agricultural insurance schemes, strengthen and improved food security and early warning systems to be used for the damage and damage caused by catastrophic floods.

Fourth, Strengthening the capacity management at the provincial and district

levels to ensure that the existing policies and strategies of the National Disaster Coordination Committee are properly implemented in the event of a flood.

Fifth, Grow agricultural products that can be harvested early by adjusting the time of a huge flood.

Sixth, The Department of Agriculture should develop a policy to reduce damage by moving animals to higher ground and allowing them to graze during the flood period.

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『국제개발협력』 운영지침

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제정 2019.10.16. 지침 제289호
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제1장 총칙

제1조(목적)

이 지침은 한국국제협력단(이하 "협력단"이라 한다)의 「간행물 발간 및 활용에 관한 지침」(이하 "간행물 발간지침"이라 한다) 제2조에 따라, 협력단이 발간하는 「국제개발협력」 (이하 "국제개발협력") 학술지의 발간 및 활용에 관한 사항을 정함을 그 목적으로 한다.

제2조(적용 범위)

"국제개발협력" 발간에 관하여는 법령 또는 다른 규정에서 특별히 정한 것을 제외하고는 이 지침이 정하는 바에 따른다.

제3조(용어의 정의)

이 지침에서 사용하는 용어의 정의는 다음 각 호와 같다.

1. "국제개발협력"이란 협력단이 발간하는 연구 학술지를 의미하며, 영문표기는 Journal of International Development Cooperation이라 한다.
2. "저자"는 "주저자"와 "공동저자"로 구분한다. "주저자"(first author)는 논문 저자 명단 중 가장 먼저 오는 자로 논문을 주도적으로 작성한 자를 의미한다. "공동저자"(co-author)는 "주저자"를 제외한 나머지 저자들을 말한다.

제2장 연구윤리

제4조(연구윤리자가진단서)

① "국제개발협력"에 연구논문을 게재하기 위해서는 별지 제1호 서식 '연구윤리자가진단서 및 저작권 이양 동의서(이하 "연구윤리자가진단서")'를 제출하여야 한다. '연구윤리자가진단서'를 제출하지 않을 경우 제출된 원고는 심사 대상에서 제외된다.

② 논문의 위조, 변조, 표절, 부당한 논문저자 표시 행위 등 부정행위를 사전에 방지하기 위해 논문유사도를 포함한 표절검사 프로그램을 이용한 검사결과를 '연구윤리자가진단서'에 작성하여야 한다.

제5조(연구자의 정직성)

① 연구자는 자신이 수행하는 연구를 정직하게 수행하여야 한다. 이 경우 정직은 연구의 구상, 설계, 자료수집, 연구비 지원, 연구 참여자들에 대한 공정한 보상, 연구 성과의 출판 등 연구 과정 전반에 관한 정직을 말한다.

② 연구자는 타인의 저작물의 인용에 관한 일반원칙을 준수하여야 한다.

③ 연구자는 타인의 저작물의 내용을 표절하지 않아야 한다.

④ 연구자는 다른 지면에 게재한 논문을 중복 게재하지 않아야 한다.

제6조(연구윤리위원회)

① 연구윤리에 관한 제반 사항을 심의·의결하기 위해 연구윤리위원회를 설치한다.

② 연구윤리위원회는 편집위원장을 포함하여 7인 내외로 구성하며, 편집위원장 및 편집위원은 연구윤리위원을 겸임한다.

③ 연구윤리위원회는 이 지침 제2장 연구윤리에 관한 규정 개정 또는 폐지에 관한 사항을 심의·의결한다.

④ 연구윤리위원회는 "국제개발협력"과 관련된 논문의 연구 윤리 사항, 연구 정직성 및 연구 부정행위에 대한 조사를 실시한다.

⑤ 연구윤리위원장은 기타 연구윤리와 관련된 제반 사항을 심의 요청할 수 있다.

⑥ 연구윤리위원회 회의는 재적위원 과반수 출석과 출석위원 과반수의 찬성으로 의결하며, 위원장은 표결권을 가지고 가부동수인 경우에는 결정권을 가진다. 사안에 따라서는 서면으로 심의·의결할 수 있다.

제7조(심사위원의 공정성)

① 논문의 심사를 의뢰받은 심사위원은 지정된 기간 안에 성실하게 평가하고, 그 결과를 편집위원회에 통보하여야 한다.

② 논문심사의 공정성을 보장하기 위하여, 심사과정 및 심사결과의 통지 과정에서 투고자 및 심사위원은 익명으로 처리한다.

③ 심사위원은 저자의 인격과 독립성을 존중하여야 한다. 평가 의견서에는 논문에 대한 자신의 판단을 밝히되, 수정이나 보완이 필요하다고 생각되는 부분에 대해서는 그 이유도 함께 설명하여야 한다.

④ 심사위원은 논문평가를 위해 필요한 경우가 아니라면 심사를 의뢰받은 논문에 관련된 사항에 대해 비밀을 지켜야 한다.

제8조(표절)

① 게재(신청) 논문이 다음 각 호에 해당할 경우 표절로 간주한다.

1. 학술지, 단행본, 학회발표논문집, 전자저널 등 학술매체를 통해 기 출간된 타인 및 자신의

연구저술의 전부 또는 일부를 무단으로 전재한 경우.

2. 기 출간된 타인의 연구저술의 연구 설계, 타인의 1차 자료, 기타 지적 재산과 관련된 항목을 사용하면서 그 출처를 적절한 방식으로 명시하지 않은 경우.
3. 기 출간된 타인 또는 자신의 연구저술의 일부를 인용하면서 인용부호, 각주, 내용주 또는 기타의 적절한 방식을 통해 그것을 명시하지 않은 경우.
4. 별지 제1호 양식에 따라 논문 표절률이 20% 이상인 경우.

② 표절 여부에 대한 판정은 다음 각 호의 사항을 따른다.

1. 편집위원회는 표절 여부의 판정권한을 가지며, 심사위원의 검토, 독자의 제보 또는 자체 판단에 따라 표절 여부를 검토하고 판정한다.
2. 표절 여부의 1차 검토는 해당논문의 심사위원 2인에게 위촉한다.
3. 편집위원회는 심사위원 2인의 1차 검토결과를 바탕으로 표절 여부를 검토·판단하고, 표절의혹이 있을 경우 그 사실을 해당논문의 저자에게 통보하고 소명하도록 한다.
4. 표절의혹에 대한 저자의 소명이 없을 경우, 편집위원회는 해당논문을 표절로 판정한다.
5. 표절의혹에 대한 저자의 반론이 있을 경우, 편집위원회는 편집위원의 과반수 참석 및 참석자의 3분의 2 이상의 찬성으로 표절 여부를 판정한다.

③ 표절사실이 인정된 경우, 다음 각 호와 같이 제재한다.

1. 편집위원회에 의해 표절판정을 받은 논문의 저자는 판정 후 4년간 단독 또는 공동으로 “국제개발협력”에 논문게재를 신청할 수 없다. 그 경우, 편집위원회는 표절 논문의 저자에게 그 사실 및 정확한 게재신청 불가기간을 공식 통보한다.
2. 게재 이후 표절판정을 받은 논문은 “국제개발협력” 논문목록에서 공식 삭제된다.
3. 편집위원회는 본 조에 따른 업무가 종료된 후 표절판정 및 제재조치와 관련된 세부사항을 한국연구재단에 통보한다.

제9조(논문의 중복게재)

① 게재(신청) 논문이 다음 각 호의 어느 하나에 해당될 경우 중복게재로 간주한다.

1. 타 학술지에 게재를 신청하여 심사가 진행 중인 논문의 경우
2. 이미 출판된 연구물 또는 게재예정인 논문인 경우

② 중복게재 여부에 대한 판정은 다음의 절차를 따르며, 중복게재 사실이 인정된 경우 다음의 제재를 부과한다.

1. 중복게재 신청 여부의 심사는 제보 또는 편집위원회의 자체판단에 따라 이루어지며, 편집위원회가 판정을 내린다.
2. 제1항에 해당하는 논문은 “국제개발협력”에 게재 신청할 수 없다.
3. 중복게재 신청된 것으로 판정된 논문은 즉시 심사에서 제외되며, 저자는 단독 및 공동으로 향후 3년간 “국제개발협력”에 논문게재를 신청할 수 없다.
4. 편집위원회는 중복게재 신청자에게 그 사실 및 정확한 게재신청 불가기간을 공식 통보한다.

③ “국제개발협력”에 게재한 논문을 재출간할 경우 원 출처를 반드시 밝혀야 한다.

제3장 편집위원회

제10조(편집위원회 구성)

① 편집위원회의 구성과 편집위원의 임기는 다음 각 호와 같다.

1. 편집위원회는 편집위원장이 추천한 10인 내외의 편집위원으로 구성한다.
2. 편집위원장은 협력단 내외부에서 추천한 자로서 협력단 연구 업무 소관 이사의 최종 승인을 받아 위촉한다.
3. 편집위원장과 편집위원의 임기는 원칙적으로 2년으로 하되, 1년 단위로 연임할 수 있다.
4. 편집위원회 구성시 국제개발협력에 대한 학문적 수월성과 분야 전문성을 보유하고, 협력단의 정책 및 사업 운영 방향 등에 대한 이해도가 높다고 판단되며, 향응·뇌물수수 등 부패행위 및 징계사항 등의 전력이 없는 자를 위원으로 위촉해야 한다.
5. 편집 간사는 학술지 발간 부서 내 1인이 되며, 위원회의 학술지 발간 관련 제반 업무를 수행한다.

제11조(편집위원회 역할)

① 편집위원회는 “국제개발협력”에 게재되는 논문의 심사, 편집 및 출판과 관련하여 다음의 항목들을 심의한다.

1. 편집위원회 운영에 관한 규정 개정 및 폐지에 관한 사항
2. “국제개발협력” 발간에 관한 규정 개정 및 폐지에 관한 사항
3. 투고 논문의 심사 및 게재에 관한 사항
4. “국제개발협력”의 편집 및 출판에 관한 사항

제12조(편집위원의 성실성)

① 논문 게재 및 편집에 관한 사항을 심의하기 위해 편집위원회를 설치한다.

② 편집위원은 투고된 논문의 게재와 관련된 모든 책임을 지며, 저자의 인격과 학자로서의 독립성을 존중하여야 한다.

③ 편집위원은 투고된 논문에 대해 그 저자와 무관하게 오직 논문의 질적 수준과 투고에 관한 규정에 근거하여 공정하게 취급하여야 한다.

④ 편집위원은 투고된 논문의 평가를 전문지식과 공정한 판단능력을 지닌 심사위원에게 의뢰하여야 한다. 동일논문에 대한 평가가 심사위원간에 현저하게 차이가 날 경우, 해당분야 제3의 전문가에게 자문할 수 있다.

⑤ 편집위원은 투고된 논문의 게재 여부가 결정될 때까지는 논문의 내용이나 저자와 관련된 사항에 대해 비밀을 유지하여야 한다.

제13조(편집위원회 운영)

① 편집위원회는 제11조의 임무 수행을 위하거나, 기타 필요한 경우 편집위원장이 소집한다.

② 편집위원회 회의는 재적위원 과반수 출석과 출석위원 과반수의 찬성으로 의결하며, 위원장은 표결권을 가지고 가부동수인 경우에는 결정권을 가진다. 사안에 따라서는 서면으로 심의·의결할 수 있다.

③ 편집위원회 회의 개최시, 회의에 참석하는 외부 편집위원에게는"예산집행지침"내 '위원회 및 설명(보고)회 업무'에 따라 회의 참석 수당을 지급할 수 있다.

제4장 발행규정

제14조(발행처)

"국제개발협력"의 발행처는 협력단으로 한다.

제15조(발행횟수 및 발행형태)

① "국제개발협력" 발간횟수는 1년에 2회 발행을 원칙으로 하며, 필요한 경우 편집위원회의 결정에 따라 발간횟수를 증감하거나 특별호를 발간할 수 있다. 학술지 발행일자 및 원고마감일은 다음 각 호와 같다.

1. "국제개발협력"은 매년 6월 30일과 11월 30일 자로 간행한다.
2. 원고마감일은 별도로 정하지 않으며, 특별한 경우 외에는 편집위원회의 결정에 따른다.

② 학술지는 저널 형태의 인쇄본으로 출판되며, 원문은 국제개발협력저널 홈페이지(ejidc.org)에 무상 제공된다.

제16조(논문의 투고, 심사, 게재 확정일의 표기)

소정의 심사 절차에 의해 게재가 확정된 논문에 대해서는 심사 절차의 투명성을 제고하기 위해 당해 논문의 접수일, 심사일자, 게재확정일자 등 심사단계를 표기한다.

제17조(논문 수집, 검토 및 채택)

① 논문 수집은 편집위원회에 일임한다.

② 논문 검토 및 심사, 게재 여부는 편집위원회에 일임한다.

③ 인쇄 전 기타 제반 업무는 편집위원회에서 논의하여 시행한다.

제18조(발행인 및 편집처)

발행인은 협력단 이사장으로 하며, 편집처는 "국제개발협력" 편집위원회로 한다.

제19조(저자 투고료 및 심사수당)

① 저자는 논문 투고 시 별도의 심사료 및 게재료를 납부하지 않는다.
② 협력단은 게재가 확정된 논문에 한해서 「조사연구사업규정」에 따라 원고료를 지급할 수 있다. 원고료 지급 기준은 논문 1편당 지급하며, 저자가 2인 이상인 경우에는 주저자에게 지급한다.
③ 논문 심사자에게는 논문의 심사 진행시, 「전문인력 업무처리에 관한 지침」을 준용하여 소정의 심사료를 지급할 수 있다.

제20조(발행 부수 및 별쇄본)
발행 부수는 관련 예산에 따라 신축적으로 결정하며, 저자에게 제공할 수 있다.

제5장 편집규정

제21조(논문구성)
본지에 투고하기 위하여 다음의 논문 작성방법을 준수해야 하며, 이에 어긋날 경우 논문접수를 보류할 수 있다.
① 한글 원고는 '한글'프로그램을 사용하며, 영문 원고는 'MS Word'를 사용하여 작성한다.
② 논문의 본문 분량은 A4용지 20매 내외이며, 논문 구성은 다음과 같은 순서를 갖추어야 한다.
1. 논문게재신청서
2. 본문 및 각주
3. 참고문헌 및 부록
③ 연구비 수령 표기는 각주로 기재한다.
④ 공동집필인 경우에는 주저자와 공동저자를 명기하여 제출하여야 한다. 저자는 제1저자를 제일 처음 명기하며, 공동저자는 논문 기여도를 고려하여 명기한다.

제22조(원고체계)
원고의 편집체계는 다음과 같다.

① 한글 원고의 편집체계는 다음과 같다.
1. 글씨체: KoPub바탕체
2. 본문 글자크기 12pt, 각주 글자크기 10pt
3. 표와 그림 글씨체: KoPub돋움체, 제목 글자크기: 12pt 내용 및 출처 글자크기: 11.5pt
4. 줄간격 170%, 상하여백 15, 좌우여백 25, 머리말 및 꼬리말 15
② 영문 원고의 편집체계는 다음과 같다.
1. 글씨체: KoPub바탕체
2. 본문 글자크기 12pt

③ 본문 서술의 순서는 “Ⅰ.”, “1.”, “1)”, “(1)” 순차로 매긴다.

④ 표나 그림 제목은 “〈표 1〉 …”과 같은 형식으로 표나 그림의 위에 적는다. 표나 그림에 대한 주는 개별주(a), b), c)의 기호사용; 확률주인 경우에는 *p<.05, **p<.01, ***p<.001), 일반주(‘주:’로 표시하고 기재)의 순으로 자료출처의 윗부분에 달아준다. 표나 그림의 출처(‘출처:’)라고 쓴 후에 제시한다. 표나 그림의 주석 순서는 개별주, 일반주, 출처의 순서로 제시한다.

제23조(인용 표시)

① 인용을 할 경우, 저자명, 간행연도를 반드시 명기하며, 인용 페이지는 선택적으로 표기할 수 있다.

② 구체적인 예는 아래와 같다.

가. 저자명은 서술의 흐름에 따라 본문에 노출시킬 수도 있고, 괄호 속에 넣어야 할 경우도 있다.
[예1] “…이상백(2009)…”; [예2] “…라 했다(이상백, 2009: 23).”

나. 외국인 저자명을 본문에 노출시킬 경우, 원어로 표기한다. 또한 외국인 저자명을 본문에 노출시키지 않을 경우, 번역서와 원서에 관계없이 저자명은 원어로 표기한다.
[예] “…Mills(2011: 66)는 …”

다. 2인 공동저술일 경우, 두 저자명을 중간점으로 구분하고 병기한다.
[예] “…(이상백・김채윤, 2006: 25), …(Lee & Xang, 1999)”

라. 3인 이상의 공동저술일 경우 “외”(et al.)를 사용한다.
[예] “…(문승규 외, 2014: 16), … (Romeo et al., 2010)”

마. 출간예정인 저술은 “출간예정”(forthcoming)을, 미간행물은 “미간행”(unpublished)을 명기한다.
[예] “…(김일철, 2017 출간예정)”; “…(Lee, forthcoming)”

바. 다수의 논문을 인용할 경우에는 가나다 순으로 정렬하고, 연도 순으로 정렬한다.
[예] “…(김철수, 2018; 홍길동, 2016; Johnson et al., 2010)”

제24조(참고문헌)

① 참고문헌의 나열은 본문에 인용 또는 언급된 것만으로 제한한다. 먼저 한국어 문헌을 저자명의 가나다 순으로 제시하고, 이어서 동양어 문헌을, 마지막으로 서양어 문헌을 알파벳 순으로 제시한다. 단, 중국어 및 일본어 저자명은 괄호 속에 영문 또는 한글 표기를 한다.

② 참고문헌은 아래의 예시를 따르며, 구체적으로 명기되지 않은 형식은 APA 양식에 준하여 작성한다.

가. 동일 저자의 저술을 두 편 이상 제시할 때는 출판연도 순으로 나열한다.
나. 동일 저자의 저술로서 같은 연도에 출간된 것이 두 편 이상일 때는 제목의 가나다 또는 알파벳순으로 나열하되, 연도표기 뒤에 a, b, c, …를 부기하여 구별하도록 한다.
다. 저자가 2인 이상일 때는 모든 저자의 이름을 기재해야 한다. 영문저자의 성은 제외한 이름은 앞글자 약어를 사용한다.
[예] "Cannel, C. F., Miller, P., & Oksenberg, L. (1981).…"
라. 국문 참고문헌의 저자명이 기관명으로 되어 있을 경우, 국문표기를 원칙으로 한다.
[예] 한국국제협력단. *2015 KOICA 대외무상원조실적 통계.* 성남: 한국국제협력단.
마. 정확한 연도를 알 수 없을 때에는, n.d.(not determined)를 사용한다.
바. 참고문헌 기재의 구체적인 예는 아래와 같다.

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제6장 논문기고 및 심사에 관한 규정

제25조(논문 기고의 요건)

① "국제개발협력"은 공적개발원조(ODA) 관련 이슈뿐만 아니라 국제개발협력과 관련한 모든 제반 문제에 대한 이론과 정책대안 모색에 관한 연구논문을 대상으로 하며, 논문의 성격 및 형태는 순수이론적인 논문, 실증분석논문, 사례연구, 응용연구 및 정책분석 등 방법론상의 제약을 두지 않는다.

② 투고된 논문은 다른 학술지에 게재된 바 없는 독창적인 내용이어야 하며, 투고 시점에 다른 학술지에서 심사 중이 아니어야 한다.

제26조(논문의 접수)

① 논문은 온라인 투고시스템을 통해 수시로 접수한다.

② 논문을 제출할 때에는 본문 외에도 논문게재신청서, 연구윤리자가진단서 및 저작권 이양동의서, 개인정보 수집·이용 동의서를 함께 제출해야 한다.

제27조(논문 심사위원)

① 심사위원은 편집위원회의 추천에 의거하여 편집위원장이 해당분야의 전문가 2인을 위촉한다.

② 심사기한은 투고한 날로부터 30일까지로 한다. 30일 이내 심사가 완료되지 않을 경우, 그 심사자를 편집위원 중 한 사람으로 교체한다.

제28조(판정기준)

① 심사의 판정은 별지 제4호 국제개발협력지 심사결과서 양식에 따라 평가한다.

② 심사 판정기준은 초심에서 accepted, minor revision, major revision, reject의 네 단계로 구분한다. 심사 횟수는 초심을 포함하여 2회로 한정하며, 2회 연속 '수정 후 재심' 판정을 받은 경우에는 '게재불가'로 결정한다.

③ 심사 결과에 근거한 판정 기준은 다음과 같다.

심사자 1	심사자 2	판정결과
accepted	accepted	그대로 게재
accepted	minor revision	수정 후 게재
minor revision	minor revision	
accepted	major revision	수정 후 재심
accepted	reject	
minor revision	major revision	
major revision	major revision	
reject	minor revision	
reject	major revision	
reject	reject	게재불가

④ '그대로 게재'는 수정 없이 게재할 수 있다.

⑤ '수정 후 게재'는 편집위원회가 정한 기한 내에 수정된 원고를 제출하여야 하며, 심사위원은 해당 원고의 수정 여부를 검토하고, 편집위원회가 최종 확인한다.

⑥ '수정 후 재심'은 편집위원회가 정한 기한 내에 수정된 원고를 제출하여야 하며, 심사위원은 해당 원고를 재심사하여 게재 여부를 결정한다.

⑦ '불가판정'으로 판정된 원고는 동일한 제목과 내용으로 "국제개발협력"에 재투고할 수 없다.

제29조(수정논문 제출기한 및 게재 확정)

① 편집간사는 게재 여부를 포함한 최종 심사결과를 그 이유와 함께 논문 제출자에게 통보한다.

② 게재확정 통보를 받으면 저자는 편집 제반규정에 따라 교정 후 최종 논문 파일을 제출한다.

③ 게재가 확정된 논문이라도 분량이나 구성 등 편집방침에 따라 다음 호로 이월하여 게재할 수 있다.

④ 수정된 논문의 제출기한은 심사결과 통보일로부터 1개월로 하고 책임저자의 서면요구에 의하여 1개월 범위 내에서 기간을 연장할 수 있으며, 특별한 사유없이 제출기한을 초과하는 경우에는 투고를 자진 철회하는 것으로 간주한다.

제30조(저작권)

① 협력단은 최종심사에 통과한 논문의 무상사용권한을 갖는다.

② 논문 투고시 별지 제1호 서식의 '저작권 이양 동의서'를 작성하여 제출하여야 한다. '저작권 이양동의서'를 제출하지 않을 경우, 제출된 원고는 심사 대상에서 제외된다.

[별지 제1호 서식] 연구윤리자가진단서 및 저작권 이양 동의서

연구윤리 자가진단서 및 저작권 이양 동의서

소속 :

성명 :

상기 본인은 '(*논문제목*) ' 연구를 수행함에 있어 연구의 객관성과 신뢰성, 연구결과의 공익성과 진실성을 확보하기 위하여 아래와 같이 연구윤리를 준수하였음을 확인합니다.

첫째, 연구과정에서 객관적인 자세를 가지고 철저한 기록을 통해 연구결과의 검증이 가능하도록 노력하였다.

둘째, 연구결과에 중대한 영향을 미칠 수 있는 데이터 및 분석 결과를 왜곡 또는 조작하지 않으며, 결과발표는 진실되고 공정하게 하였다.

셋째, 유사 중복된 연구를 지양하며, 연구자원을 투명하고 효율적으로 사용하도록 노력하였다.

넷째, 타인의 연구개발 과정과 결과를 존중하며, 위조, 변조, 표절 등 지적재산을 도용하는 부정행위를 하지 않았다. 이를 위해 본인은 연구 최종 결과에 대한 표절 부정행위를 방지하기 위해 표절검사 및 유사성 검사를 사전에 실시하였다.

표절 검사 활용 프로그램명	
표절 검사 기준	*예. 6어절 이상 일치,* *1문장 이상 일치 등*
최종 표절률 (20% 이내 인정)	

다섯째, 본 논문이 ‘국제개발협력’에 게재될 경우, 저작재산권(복제권, 공연권, 공중송신권, 전시권, 배포권, 대여권, 2차적 저작물작성권) 전부를 한국국제협력단에 이양하기로 동의한다.

저 자	성 명	소속 및 직위	수신 이메일	전화 번호	서 명
제1저자				연락처 1 : 연락처 2 :	
공동저자1				연락처 1 : 연락처 2 :	
공동저자2				연락처 1 : 연락처 2 :	
교신저자				연락처 1 : 연락처 2 :	

년 월 일

한국국제협력단 이사장 귀중

[별지 제2호 서식] 논문게재신청서

논문게재신청서

논문제목(국문)				
논문제목(영문)				
주저자	성명	(국문)	(영문)	
	소속		직위	
	주소			
	전화		팩스	
	이메일			
	저자약력			
공동저자	성명	(국문)	(영문)	
	소속		직위	
	주소			
	전화		팩스	
	이메일			
	저자약력			
목차				
국문요약				
국문키워드				
영문요약				
영문키워드				

* 논문요약은 국문 기준 700자 내외, 영문기준 300단어(words)로 제한하며, 3~5개의 국문 및 영문 주제어(Key words) 제시.

[별지 제3호 서식] 개인정보 수집·이용 동의서

연사료 · 원고료 · 자문료 지급을 위한 개인정보 수집 · 이용 동의서

한국국제협력단은 연사료 · 원고료 · 자문료 지급을 위하여 개인정보보호법 제15조 및 제22조, 제24조에 따라 개인정보 수집 · 이용 및 제공에 대한 귀하의 동의를 받고자 합니다. 자세히 읽어보신 후 동의 여부를 결정해 주시기 바랍니다.

■ 개인정보 수집 · 이용 내역(필수항목)

수집 · 이용 항목	수집 · 이용 목적	보유기간
이름, 생년월일, 전화번호, 소속, 직급, 이메일, 주소, 학력, 경력, 수상실적, 저역서 및 학술논문(이력서), 계좌번호, 사진	발표료 · 원고료 · 자문료 지급을 위한 전문가 등급 책정 및 지급	2년(재동의)

※ 위의 개인정보 수집 · 이용에 대한 동의를 거부할 권리가 있습니다. 그러나 동의를 거부할 경우 발표료 · 원고료 · 자문료 지급이 불가합니다.

☞ 위와 같이 개인정보를 수집 · 이용하는데 동의하십니까?

본인 □ 동의함 □ 동의하지 않음

[기타 고지사항]

개인정보보호법 제15조 제1항 제4호, 제24조의2 제1항 제1호에 따라 정보주체의 동의 없이 개인정보를 수집 · 이용합니다.

개인정보 항목	개인정보 처리사유	보유기간	수집 근거
주민등록번호, 여권번호, 운전번호, 외국인등록번호 중 선택	원천징수영수증 발행	5년	국세기본법시행령 제68조(민감정보 및 고유식별정보의 처리) 3항

■ 위와 같이 개인정보를 수집 · 이용하는 데 동의합니다.

년 월 일

본인 성명 (서명 또는 인)

한국국제협력단장 귀중

[별지 제 4호 서식] 국제개발협력지 심사 결과서

국제개발협력지 20xx년 □ 1호 / □ 2호

국제개발협력지 심사 결과서

□ 초심 □ 재심

심사자명		소 속	
논문제목			
심사일자			
심사총평 (저자에게 전하는 말)			

심사기준	영역	내용	판정등급 A (20)	B (16)	C (12)	D (8)	E (4)
	연구의 활용가능성 (20점)	◦ 연구내용의 구체 수준 ◦ 관련된 개발협력 대내외 환경·맥락에 대한 분석적 토대 수준 ◦ 논문이 정보의 양 및 구체성 ◦ 개발협력 전략·사업 시사점에 대한 연구내용의 유의미 수준					
	연구 독창성 (20점)	◦ 연구주제, 방법, 설계 측면에서의 참신성					
	내용의 논리성 (20점)	◦ 연구배경과 문제제기 과정 간의 논리적 연계성 ◦ 국제개발협력 분야 논문으로서의 구성의 적합성					
	연구방법론의 적절성 (20점)	◦ 문제제기와 방법론 간 연계의 타당성 ◦ 연구목적과 연구내용 간 연계의 타당성 ◦ 연구과정의 논리적 타당성과 신뢰성 ◦ 모집단 설정, 표본선정, 조사결과의 연구적 해석의 적절성 ◦ 결론 도출의 타당성					
	연구서술의 적절성 (20점)	◦ 인용 자료에 대한 저자·문헌 표기 등 성실한 서술 여부(referencing) ◦ 참고문헌 작성에 대한 관례 준수 여부 ※ 표절 부분이나 인용이 적절하게 되지 않은 부분은 지적 요망 ◦ 연구서술에 대한 가독성 ◦ 목차 구성과 서술 방식의 논리적 흐름					
	총점		( )점 / 100점				

최종판정	게재 (100-90점)	수정 후 게재 (89-80점)	수정 후 재심사 (79-70점)	게재불가 (69-0점)

편집위원에게 전하는 심사의견	

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발 행 처 한국국제협력단
편 집 인 ODA연구센터
주 소 경기도 성남시 수정구 대왕판교로 825 (우:13449)
전 화 031) 740-0777
팩 스 031) 740-0772
홈페이지 http://www.koica.go.kr
인 쇄 (주)명진씨앤피 (02)2164-3000

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KOICA 한국국제협력단

13449 경기도 성남시 수정구 대왕판교로 825
Tel. 031-740-0114 Fax. 031-740-0655
http://www.koica.go.kr