Population dynamics in the Post-2015 World
Joint submission to the UK Parliamentary Hearings, by PSN and PSDA
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Population and Sustainability Network (PSN) is a UK-based advocacy organisation and international network that works to advance understanding of the relationships between population, health and sustainable development issues and to promote integrated approaches to these interconnected challenges.

The Population and Sustainable Development Alliance (PSDA) is an international network of civil society organisations that work together on population, sexual and reproductive health and rights and sustainable development issues.

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1. Population dynamics, SRHR and sustainable development[1]

Introduction

Population dynamics[i] and sexual and reproductive health and rights (SRHR) are critical to sustainable development. By 2050 the world's population is projected to increase from 7 billion in 2011 to 9.6 billion.[2] In the same period the population living in urban areas will grow from 3.6 billion to 6.3 billion,[3] and some countries and regions are experiencing population decline and / or ageing.[2] A changing, increasingly affluent and growing world population is influencing demand for vital natural resources and services, alongside the considerable environmental pressures resulting from unsustainable consumption patterns by the wealthiest nations and groups. At the same time, certain aspects relating to demographic change, including urbanization and prospects to address unmet need for family planning, if harnessed, offer opportunities for sustainable development. Advancing SRHR, including increasing access to voluntary family planning services, is a key development priority in its own right, and can positively influence population dynamics and benefit other priorities. Addressing population dynamics in ways that respect and protect human rights must be part of the post-2015 framework, along with other necessary interventions for achieving sustainable development, including those that combat unequal and unsustainable consumption patterns, and other pressing drivers of social inequalities and environmental degradation.

Population dynamics and SRHR shape development challenges

Population size and other dynamics such as urbanization, migration and ageing, influence demand for resources and services, alongside consumption patterns and efficiency. Population dynamics set the scale and influence the shape of the development challenges we face, for example, determining the number and location of people requiring access to water and sanitation, food, and health and education services. Yet an estimated 225 million in women in developing countries are at risk of and want to avoid pregnancy but have an unmet need for contraception, in addition to the considerable unmet need that exists in developed countries.[4] Worldwide an estimated 40 per cent of pregnancies are unintended.[5] Demography is not destiny: achieving universal access to reproductive health, including access to voluntary family planning services that respect and protect human rights, offers opportunities to reduce demographic pressures, while advancing women's rights and improving human health and wellbeing. Empowerment of women and achieving universal access to SRHR are important priorities for the sake of health and human rights, as well as for their capacity to positively influence population dynamics and environmental sustainability.

Cost-effectiveness of SRHR

The cost-effectiveness of reproductive health investments, particularly family planning, is well known. New research by the Copenhagen Consensus Center found that a Post-2015 development goal of 'Achieving universal access to sexual and reproductive health (SRH) services by 2030, and eliminating unmet need for modern contraception by 2040' would be particularly cost-effective, delivering $120 of social and economic benefits for every $1 invested, including by positively influencing population dynamics. Environmental and climate-change related benefits are not included meaning the actual cost benefit ratio is likely to be even higher.[6] Of the actual goals proposed by the Open Working Group 'ensure reproductive health for all' (Target 3.8) and 'ensure universal access to sexual and reproductive health and reproductive rights in accordance with the Programme of Action of the ICPD' (Target 5.9) are amongst the most cost-effective.[7]

Planning for population dynamics

The failure of the MDGs to take into account population dynamics and projections has made it more difficult to succeed. Globally the proportion of people living on less than $1.25 a day more than halved (47% in 1990 to 22% in 2010), meaning Target 1A has been achieved. Yet in sub-Saharan Africa,

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[i] While the term 'population dynamics' is receiving increasing attention and focus there are few definitions. We define population dynamics as: *demographic trends and changes including population growth, population decline, ageing, urbanization and migration, which influence the size, composition and spatial distributions of population.*

almost half the population live on less than $1.25 a day and the number of people living in extreme poverty has risen steadily, from 290 million in 1990 to 414 million in 2010. This is explained in large part by population growth which means that despite global efforts, we are not even succeeding in keeping the numbers living in extreme poverty stable on that continent.[8] Similarly, the achievement of MDG 7D to achieve significant improvement in the lives of at least 100 million slum dwellers has been achieved but population growth and urbanization has outpaced this achievement. The number of slum dwellers has increased dramatically, from 650 million in 1990 to 863 million in 2012.[8] The SDGs risk repeating this mistake. To date the need for development goals, targets and indicators to be forward-looking, based on projected changes in population size, location (including migration and urbanization), and age structures has been overlooked.

Policy recommendations

We call on the UK government to support and actively promote the following recommendations throughout the Post-2015 negotiations and process, to ensure that population dynamics are addressed in ways that respect and protect human rights:

a. **Prioritize universal access to sexual and reproductive health and rights, including family planning.** The Post-2015 development framework must recognize and seek to achieve sexual and reproductive health and rights in full. This must include planning to meet the increased demand for SRHR services resulting from population growth and the large generation ever of young people. Without increased investment unmet need will increase.

b. **Invest in the cross-cutting issues of health, education, women's equality and human rights.**

c. **Devise forward-looking goals:** with sustainable development goals, targets and indicators based on projected changes in population size (growth and decline), location (taking account of **urbanization** and **migration**) and age structures. Population data and projections must be used systematically, requiring improvements in capacity to prepare population projections and to use them for the formulation of national, subnational and sector development strategies, goals, targets and policies, as well as for monitoring and accountability. Universal birth, death and marriage registration is important for this. Governments cannot hope to achieve goals unless the scale and scope of the challenge has been identified.[9]

d. **Sectoral planning should utilize population data:** Planning for ensuring access to food, water, sanitation and hygiene (WASH) for all etc., must be informed by systematic use of population data and projections.

e. **Use population data to help address inequalities and social equity issues:** use data and indicators disaggregated by sex, age, rural/urban location etc.

f. **Ensure sensitive, nuanced and rights-based discussion of population dynamics**, including dialogue that recognises unsustainable and inequitable consumption by the wealthiest nations and groups as the primary driver of global environmental degradation and climate change, places human rights centre-stage, and acknowledges gender equality and SRHR as important development goals in their own right.

For an overview of how well these recommendations are addressed within the Sustainable Development Goal Proposal see: PSDA (2014) *Response to the Open Working Group SDG proposal*.

2. Case Studies:

Population Health Environment Approaches – Holistically advancing sustainable development in the context of unmet need for SRHR, population growth, migration and climate change

Integrated Population Health Environment (PHE) approaches combining reproductive health interventions with conservation and other development initiatives can benefit both the health of local communities and ecosystems, helping balance environmental protection, natural resource use and human well-being and offer more effective-long term solutions.

Improving human and ecosystem health by integrating family planning services with sustainable resource management initiatives in coastal Madagascar

By Laura Robson, Blue Ventures Conservation

Challenge

- Coastal people in southwest Madagascar rely almost exclusively on the sea for food, income, transport and cultural identity. However, these marine ecosystems are under threat from **climate change** (coral bleaching, ocean acidification, extreme weather events), overfishing and destructive fishing.
- Human population growth in remote coastal regions is significantly higher than the national average due to **unmet family planning needs** (with clinics located up to 50 kilometres away from some villages) and **migration** from arid inland areas where agricultural productivity is extremely limited. This is placing increasing pressure on marine ecosystems and making it harder for people to provide for their growing families.
- Those who **migrate** from inland often don't have the expertise of coastal communities and sometimes resort to destructive fishing practices, generating tension with traditional fishers and degrading the marine ecosystems upon which all of their livelihoods depend.
- The challenges of unmet family planning needs, coastal migration, population growth, food insecurity, environmental degradation and vulnerability to climate change are closely interconnected and mutually reinforcing within this context.

Response

- British marine conservation organisation Blue Ventures (BV) has developed a holistic approach integrating family planning services with sustainable coastal livelihood and resource management initiatives in southwest Madagascar.
- This distinctive style of working has emerged through conversations with local communities, who challenged BV to appreciate the ways in which human and ecosystem health are intertwined. BV therefore started incorporating the provision of voluntary family planning services into their fisheries management and locally led marine conservation initiatives in 2007.
- From sea cucumber farming to reproductive health, BV's interdisciplinary teams now work closely together to coordinate activities. They engage communities in a variety of topics through small group discussions and interactive theatre. Exploring the connections between different themes enables them to broaden their reach, for example, getting men talking about family planning and involving women in fisheries management.

Impact

- BV's integrated "Population-Health-Environment" approach enables couples to plan and better provide for their families; improving food security, empowering women to play a more active role in natural resource management, and building socio-ecological resilience to climate change.
- It supports local communities to tackle issues of overfishing and destructive fishing while increasing their adaptive capacity by facilitating the diversification of income sources and giving them the opportunity to make their own reproductive health choices.

- Since Blue Ventures started offering family planning services in 2007, it is estimated that over 900 unintended pregnancies have been averted among a population of 20,000 across two service delivery zones covering locally managed marine reserves and adjacent inland communities.
- Blue Ventures' holistic model has received critical international acclaim; winning the St Andrews Prize for the Environment in 2014, the Excellence in Leadership for Family Planning (EXCELL) Award in 2013, and the Buckminster Fuller Challenge in 2011.

Integrated Development in a Fragile Ecosystem; The Case of Lake Chilwa Basin, Malawi

By Deepa Pullanikkatil, LEAD Southern & Eastern Africa (LEADSEA)

Context

Lake Chilwa Basin in Southern Malawi is a fragile ecosystem, important for biodiversity and livelihoods. 1.5 million people live in the UNSECO Biodiversity Reserve, dependant on this ecosystem for their livelihoods, particularly fishing.[10] The Basin is threatened by; change in land cover due to increased cultivation, over extraction of natural resources including over fishing, and increasing competition for natural resources due to **increasing population density and migration** into the basin.[Error! Bookmark not defined.] Furthermore, the Basin is prone to environmental shocks due to **climate variability and climate change.** The Lake has completely dried up 9 times in the past 100 years[Error! Bookmark not defined.] resulting in loss of biodiversity, collapse of fisheries and wetland cultivation,[11] and between 2012-2014, has experienced receding levels.[12]

LEAD's Lake Chilwa Basin Climate Change Adaptation Programme (LCBCCAP) began in 2010, building the resilience of the natural resource base and improving livelihoods thereby helping communities adapt better to climate change impacts. As the project progressed, communities voiced health needs that hindered their participation in project activities, in particular address of Bilharzia and need for **family planning.** The LCBCCAP responded through support from Population Action International and the World Health Organization in addressing these needs.

Results

The linkages between **climate change adaptation, health and population** were clear in Lake Chilwa. Communities expressed a desire and need for integrated development to address their livelihoods, health and family planning needs in a holistic manner.

Research by the project provided evidence for authorities to increase Bilharzia treatment through mass drug administration and now farmers, out of school youth and other community members can access necessary treatment.

As the project progressed, it was observed that women's participation was less than expected. Women in Malawi have an unmet need for family planning of 26% nationally,[13] and are overburdened by responsibilities of looking after their households, fetching water, firewood and sourcing food. In Lake Chilwa Basin fertility is higher than national average. Fifty per cent of Malawian women get married before the age of 18 years. Having large numbers of children and low access to family planning restricts women's participation in projects and income-generating activities, and makes them more vulnerable to climate change. Health and population were integrated through collaboration with local NGOs, international organizations and development partners, bringing synergy and sharing of resources as well as infrastructure. Family planning was promoted through advocacy via radio programmes and one programme successfully prevented a child marriage. Communities have received training on the linkages between population, reproductive health and the environment and there are plans to increase access to contraceptives through mobile clinics.

3. Urbanization and migration

Overview

- Population growth and migration contribute to urbanization and influence demand for housing and essential services including, health, education, water and sanitation.
- By mid-century, the urban population of Africa is likely to triple and that of Asia to increase by 61 per cent.[3]
- With effective planning urbanization can offer opportunities to increase access to health services, education and employment.
- Migration within countries, particularly rural to urban, accounts for a far greater share of movement than international migration.
- South – South accounts for the greatest share of international migration (35% in 2013 just over 82 million people), followed by South – North (34% just under 82 million), North – North (23%, 54 million) and North – South (6%, 14 million people).[14]
- Migration is an important livelihood strategy and contributor to development. In 2012 remittances from migration resulted in $530bn; three times the amount of Overseas Development Aid.[15]
- Population pressures can play a role in some migration 'push' factors (negative reasons people migrate), including: environmental factors such as drought, soil erosion and climate change, natural disasters, lack of jobs and economic pressures, conflict and insecurity and persecution (refugees).
- If interventions to reduce barriers to migration within and between countries were included in the Post-2015 development framework they would have an extremely high cost-benefit ratio.[6]
- Globally 49% of the world's migrants are women, and 45% in developing countries.[16] Increasing feminisation of migration has a number of policy implications, including: risk of sexual exploitation and violence, poorly paid jobs, lack of rights, lack of access to health services.

Urbanization, migration and SRHR

- Increasing access to family planning and other SRHR services in both rural and urban areas and other interventions to improve women's status, could lessen the pace and pressures of urbanization and enable more effective urban planning to seize the opportunities that urbanization offers, including economies of scale and opportunities to progress demographic transition in developing countries (as urban fertility rates tend to be lower).
- Ensuring universal access to SRHR, including family planning and maternal and child health services, is critical for breaking the link between urbanization and rising poverty and inequality in developing countries.
- Urbanization can offer an opportunity to increase access to SRHR and other services, due to proximity to services and economies of scale. Yet increased demand can place pressure on services if urbanization outstrips investment in health, education, housing and other services.
- Young people account for a large proportion of urban and migrant populations, but often face a lack of access to appropriate SRHR information, education and services. Ensuring that young people have access to the services necessary to protect and exercise their sexual and reproductive health and rights is critical for their empowerment and for enabling them to seize the increased opportunities for education and employment that urban areas may offer.
- Vulnerable groups with particular SRHR needs who often experience difficulties in accessing health services include: migrants and refugees (including female migrants and domestic workers), young people, slum residents, sex workers and trafficking victims.
- Migrants and refugees in particular often do not have the right to access health services. They may also have particular needs relating to sexual and gender based violence.
- Generally, urbanization is associated with increased contraceptive use / acceptability and lower fertility rates, as a result of: a more educated population, higher costs of raising children, higher age at marriage and greater access to SRHR services.

Policy recommendations

a. **Population data must be used for effective urban planning:** Population trends, including population growth, rural-to-urban migration and ageing must be taken into account as part of effective urban planning. For example, to ensure sufficient infrastructure, health and education services for growing and changing populations, including migrants, slum residents, youth and older persons. The OWG SDG proposal include a goal on cities and human settlements, yet targets for enhancing sustainable urbanization and development planning fail to acknowledge the need for systematic use of population data and projections for planning purposes.

b. **Planning and investment to meet increased demand for SRHR services from growing and moving populations and the specific needs of vulnerable groups in urban areas, including young people, refugees and migrants, slum workers and sex workers.**

c. **Policies to ensure that refugees and migrants have the right and ability to access health services.**

d. **Urban planning must ensure the safety, and address the public health concerns, of youth, girls and women.**

4. Population dynamics and climate change

Overview

The connection between population and climate change is:[17,18]

Complex: Research has shown that increased investment in access to voluntary family planning programmes could have a positive impact on mitigation and adaptation strategies, but it must be recognised that the key driver of climate change is the relatively high level of carbon emission in the developed world, where population growth is not, for the most part, a major issue. Demographic variables such as household size, age and sex composition and population density influence per capita consumption levels and intensify the complexity of the relationship between population growth and climate change.

Controversial: Developing countries themselves are increasingly identifying population as exacerbating vulnerability to climate change and undermining adaptation. Yet, given that the industrialised North is not radically reducing its carbon emissions, advocating reduced population growth in the South risks appearing to blame that growth for climate change, in a context within which Southern countries have contributed the least to climate change but will suffer the most from its impact. Historic contributions to climate change and differences in per capita emissions between countries must be recognized, as well as the right of poorer countries to develop, making reducing consumption levels in the North and of the rich all the more urgent (ie. the poor need to consume more and the rich less.) It is also important to advocate family planning programmes that respect and protect human rights: historically those which have been oriented towards reducing fertility have not always reflected these values; coercive family planning programmes have no place in international development.**Error! Bookmark not defined.**

Critical: Developing countries already experiencing the climatic impacts identify population dynamics, including population growth, high population density and migration, as exacerbating their vulnerability and undermining adaptation.**Error! Bookmark not defined.** Additionally, population dynamics are relevant to mitigation. While regional differences in per capita carbon emissions must be recognised, addressing current unmet need for modern contraception would slow population growth and reduce global average fertility to 1.65 children per woman (below replacement level) by 2050[19] and slowing

population growth to a low rather than medium path could achieve 16-29% of the reductions in carbon emissions necessary to avoid dangerous global warming of more than 2°C by 2050.[20]

What does the IPCC say about Population Dynamics?[21]

The latest reports by the Intergovernmental panel on Climate Change (IPCC) provide the starkest warnings yet and for the first time have a lot to say about population dynamics and family planning:-

Population dynamics:
- increased GHG emissions are caused by economic growth *and* population growth
- threats to coastal systems and low lying areas will increase due to population growth, economic development and **urbanization**
- climate change will increase displacement and **migration**
- **migration** is an effective adaptation strategy
- **urban areas** are responsible for over 50% of primary energy use and contain a high proportion of populations at risk from climate change
- integrated **urbanization** response strategies hold potential for mitigation and increased resilience

Family planning
- addressing unmet need for family planning is a way of reducing human suffering and climate change and not only in developing countries. The example of US is given, with unmet need *and* high per capita emissions
- family planning has multiple benefits, including: slowing population growth, reducing energy demands, improving maternal and child health
- cites a study estimating CO_2 emissions could be 30% lower by 2100 by addressing unmet need.

What do developing countries have to say?

National Adaptation Programmes of Action (NAPAs)[22]

The world's least developed countries produced NAPAs under the UNCCC, outlining localized vulnerabilities to climate change and top priorities for adaptation.

93% identify population growth and high population density as factors that make coping with climate changes harder, including through:
- Pressure on fresh water availability
- Soil degradation/erosion, with implications for agriculture
- Shortage of land per capita/ over grazing
- Deforestation
- High population density/**migration** to coastal areas, increasing vulnerability.

Empowering women and men to plan and space their children as they wish can improve human health and well-being, while helping support climate adaptation and increase resilience in ecologically fragile areas.

Climate change and migration

- Climate change is already spurring migration, including internal and seasonal migration.
- One third of the world's population lives within 60 miles of a shoreline and thirteen of the world's twenty largest cities are located on a coast.[23] Therefore hundreds of millions could be displaced in environmental mass migration due to sea level rises resulting from global warming.
- A widely cited statistic is that by 2050 there could be 200 million people displaced by climate change.[24] Yet the true number of people forced to migrate due to climate change and other environmental factors is extremely difficult to predict. Numbers and definitions about "environmental migrants" or "climate change refugees" should be treated with caution.
- Migration is an important livelihood and adaptation strategy to offset impacts of environmental shocks and stresses. Through moving out of areas of exposure to hazards (either on a

permanent, temporary or seasonal basis) people can better survive hazards or lean seasons, earn income for recovery/preparedness and diversify livelihoods.

- The poorest and most vulnerable people often have the least capacity to migrate, lacking the necessary financial or social assets.
- The Foresight report on Migration and Global and Environmental Change emphasised that people are as likely to migrate to places of environmental vulnerability as away from them.[25] This is shown in the growth of megacities in vulnerable coastal areas of Asia and Africa and the presence of poor, new migrants living in **urban areas,** particularly slums and informal settings, vulnerable to flooding and other risks.
- The Philippines has recently submitted a report to the UN's climate body, identifying population growth, migration to flood- and earthquake-prone urban areas and **urbanization** as increasing its vulnerability to climate change.[26]

See section 2 for case studies on climate change, population, migration and reproductive health and Section 3 for migration-related recommendations.

Policy recommendations:

a. **Integration of rights-based family planning into adaptation efforts, and necessary cross-sector collaboration between environmental, health and development actors.**
b. **Promotion of and support for integrated Population Health Environment approaches as holistic sustainable development strategies, including for climate change adaptation.**
c. **Increased investment to address unmet need for family planning, promote rights-based development and contribute to climate change adaptation.**
d. **Climate related funding streams must be flexible enough to support integration of reproductive health programmes with climate adaptation mechanisms.[27]**
e. **Effective leadership to ensure that population and family planning and its importance in relation to climate change is discussed at the most influential levels, nationally and internationally, to bring about joint action.[28]**
f. **Sensitive dialogue and advocacy calling for climate change mitigation and adaptation strategies that address and recognise the need for both address of unsustainable and inequitable consumption patterns of the rich as the primary driver of climate change, and advancement of sexual and reproductive health and rights.**
g. **Recognition of migration as a legitimate and critical adaptation strategy and interventions to reduce barriers to migration as an environmental coping strategy.**
h. **Actions to meet the health needs and ensure access to health services for migrants and refugees** (See section 3).

5. Conflict, peace and security:

Overview[29]

- The interaction of factors that contribute to conflict and insecurity is complex and context-specific, but frequently encompass political, socio-economic and environmental factors, including environmental degradation and resource scarcity, and social inequalities and population dynamics.
- Pressures associated with population growth, migration and urbanization can be contributing or exacerbating factors for conflict related to access to resources such as land, water and basic services and environmental degradation.
- An analysis of the Failed States Index 2011 found that the top 20 'Failed States':
  - The top 20 included some of the highest population growth rates and/ or total fertility rates (TFR) in the world, including: Afghanistan, Chad, Dem. Rep. Of Congo, Iraq, Niger, Nigeria, Somalia and Yemen.
  - The top 20 have an average TFR of 5.3, in comparison with 2.68 in less developed countries overall.
  - In 13 of the top 20 the population is set to double within 30 years or less.
- Population pressures on resources such as land, water and basic services, high levels of

- unemployment among predominantly young populations, and rapid urbanisation are among the demographic elements that have contributed to conflict in developing countries since the 1990s.
- Countries with a high proportion of young people (including many developing countries), are more likely to experience conflict and insecurity, particularly when there are insufficient jobs, education and other prospects for youth.
- Migration flows resulting from conflict can bring civil unrest to new areas and across borders**.**
- Family planning provision and investment in young people has the potential to contribute to peace and security in the longer-term by helping ease demographic factors contributing to conflict.
- Conflict and insecurity presents challenges for delivering SRHR services as well as particular needs.

Policy recommendations

- **Promotion of and support for integrated approaches encompassing both advancement of SRHR and environmental strategies to ease demographic pressures and help sustainable and equitable management of natural resources.**

- **Ensure universal access to rights-based sexual and reproductive health services, including voluntary family planning, for all communities, especially in areas prone to instability, environmental scarcity and climate change.**

- **Ensure the implementation of minimum standards for responding to the sexual and reproductive health needs and rights of women and girl survivors of conflict and disaster**, which includes interventions to meet the needs of pregnant and lactating women and victims sexual and gender based violence.[ii]

Further reading

Blue Ventures (Website), including approach and Population Health Environment Programme - **Madagascar case study.** Mbonile, M J. (2005). *Population, Migration, and Water Conflicts in the Pangani River Basin, Tanzania.* **Case study** of Tanzania's Pangani river basin, **urban migration** and **migration** of pastoralists forced into more marginal lands has contributed to conflicts over water.

Mohan, V. and Shellard, T. (2014) "Providing family planning services to remote communities in areas of high biodiversity through a Population-Health-Environment programme in Madagascar." Reproductive Health Matters, 22 (43), pp.93-103 - **Madagascar case study.**

Population Action International (2011) *Why population matters to migration and urbanization.*

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PSDA (2014) *Post-2015 illustrative targets and indicators.*

PSDA (2014) *Population Health Environment Programmes: An Integrated Approach to Development Post-2015.* – Provides an overview of PHE, its potential to contribute to Post-2105 development and further PHE **case studies** by PSDA members Path Foundation Philippines Inc. and PHE Ethiopia Consortium.

PSN (2011) *Population Dynamics and Fragile States.* Includes **case studies** of population pressures, environmental scarcity and conflict in Somalia and Sudan.

Westerman et al. (2013) "Building socio-ecological resilience to climate change through community-based coastal conservation and development: experiences in southern Madagascar" Western Indian

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[ii] We recommend the Minimum Initial Service Package for Reproductive Health in Crisis Situations (MISP).

Ocean Journal of Marine Science, 11 (1), pp. 87-97 - **Madagascar case study.**

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