

52nd GEF Council Meeting
May 23 – 25, 2017
Washington, D.C.

Agenda Item 13

**TACKLING THE DRIVERS OF GLOBAL ENVIRONMENTAL DEGRADATION
THROUGH THE
INTEGRATED APPROACH PILOT PROGRAMS**

Progress Report for GEF Council
October 2016 – April 2017

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INTRODUCTION

1. On June 4, 2015, during its 48th meeting, the Council [approved](#) the three integrated approach pilots (IAPs) included in the GEF-6 replenishment: 1) Fostering Sustainability and Resilience for Food Security in Sub Saharan Africa (FS IAP program); 2) Taking Deforestation out of Commodity Supply Chains; (Commodities IAP program) and 3) Sustainable Cities (SC-IAP program). This report provides an update on activities since then to advance the programs, spanning the period October 2016 – April 2017. Most importantly, it includes a brief summary of all child projects for which design activities have been completed or are in final stages of completion.

2. The *integrated approach* modality was a key component of the GEF-6 reform and GEF 2020 strategy, focusing specifically on programming of resources by tackling drivers of environmental degradation. The modality primarily implies investment in recipient countries that can help them meet commitments to more than one global convention or thematic area by tackling underlying drivers of environmental degradation. The GEF-6 Programming Directions set out a rationale for piloting the modality to address discrete, time-bound global environmental challenges in line with the targets and goals of the multi-lateral environmental agreements (MEA) that the GEF serves.

3. Since the last report to Council at its 51st meeting in October 2016, GEF Agencies and partners continued engagement with countries for the development and preparation of child projects. In addition, continued engagement by the GEF Secretariat and STAP helped to clarify major cross-cutting issues for ensuring coherence and consistency within each and across all the IAP programs. Progress toward full delivery of the portfolio and emerging lessons are highlighted below, based on the features that underpin the integrated approach modality as outlined in the GEF-6 Programming Directions.

Address key drivers of environmental degradation at global or regional scales

4. The IAP programs are directly focused on addressing major drivers of environmental degradation: agricultural transformation and intensification, expansion of commodity production (beef, oil palm and soy) in the tropics, and urban population growth and expansion. Design activities under each program were therefore intended to identify and target appropriate entry points for solutions at multiple scales.

5. The FS IAP program was designed to address *agricultural transformation and intensification* as a driver of environmental degradation in Sub-Saharan Africa. The program created opportunity for countries to harness GEF resources for promoting sustainability and resilience through integrated management of the natural resources — land, water, soils, trees and genetic resources — that underpin food and nutrition security. Design activities under the program were focused on mobilizing relevant stakeholders to advance the integrated approach, which will facilitate the scaling-up of practices that support aspirations for food security and generate global environmental benefits. This will ultimately help smallholder farmers to

improve soil health, diversify their farms and landscapes, and at the same time increase productivity of crops and livestock. As a result of the design activities, the GEF is now well placed to promote the integration of environmental management in ongoing efforts toward transformation of African agriculture.

6. The Commodities IAP program is tackling the *expansion of commodity production* in the tropics, which is the underlying root cause of deforestation, leading to loss of biodiversity, increasing GHG emissions and degradation of land and water resources. The program is advancing an integrated “supply chain” approach to tackling deforestation from agriculture commodities, specifically *beef, oil palm, and soy* that together account for nearly 70% of deforestation globally. Design activities under the program have focused on options to increase adoption of better practices and sustainability principles for the production systems, while supporting conservation and protection of forests. By advancing this integrated “supply chain” approach for beef, oil palm and soy, the GEF is now well placed to help ensure that the future drive for agricultural commodities that do not contribute to deforestation becomes standard industry practice.

7. The SC-IAP program is an ambitious attempt to promote urban sustainability, recognizing the unique window of opportunity that comes with rapid urbanization and the foreseeable connections with global environmental issues. As mayors in developing countries seek to transform cities into resilient hubs of growth, there is a growing demand for innovative tools and knowledge to help them make informed decisions. The SC-IAP seeks to promote the creation and implementation of sustainable urban planning and management initiatives in selected cities around the world. There is already a considerable amount of support for sustainable cities around the world. Hence, the design approach has focused on leveraging existing initiatives and networks to support planning and implementation efforts at city-level, including an emphasis on holistic, evidence-based planning, increasing access by cities to a comprehensive suite of support services, promoting a network approach at multiple scales, and contributing to global discourse and financial leverage. As a result, the GEF is now well-placed to influence how global environmental benefits are accounted for in this important space.

Build and improve on focal area synergies for greater and sustained impact

8. Complementing the individual strategies developed to orient and prioritize GEF-6 investments in the focal areas, the IAP programs offered the possibility of additional targeted investments directed at reversing disquieting trends in the global environment that directly affect the goals and targets of the international environmental conventions. Furthermore, the programs sought to promote the sustained flow of multiple global environmental benefits while ensuring that progress in a particular dimension of the global environment does not negatively affect other related objectives.

9. The approach to achieving focal area synergy is different for each of the IAP programs, given the nature of drivers being tackled to deliver multiple global environmental benefits. The Food Security IAP which is focused on tackling agricultural expansion seeks to promote integrated management of natural capital contribute benefits under Biodiversity (BD3 and

BD4), Climate Change Mitigation (CCM2), and Land Degradation (LD1, LD3, and LD4). Because the range of interventions proposed are spatially integrated and linked across scales, the potential benefits to be generated will be synergistic and in line with the focal area objectives.

10. The integrated “supply chain” approach of the Commodities IAP program is designed to tackle tropical deforestation driven by growing expansion of beef, oil palm and soy production. By creating enabling conditions across the entire supply chain to shift production toward sustainable practices and to make high biodiversity value and high carbon stock forests less accessible, the IAP program will contribute global environmental benefits under Biodiversity (BD4), Climate Change Mitigation (CCM2), and the Sustainable Forest Management Incentive (SFM1). Given the geographically targeted approach with links across multiple scales, the IAP Program is expected to support reduced deforestation from commodity production, biodiversity conservation and sustainable forest management in a synergistic manner.

11. Through the integrated approach, the SC-IAP program is supporting selected cities to address the rising urban demand of goods and services, and rising consumption of resources, all of which are contributing to global environmental degradation. By promoting sustainable urban development through better integrated models of urban design, planning and implementation, the program will contribute multiple global environmental benefits in a synergistic manner. Because the focus is on promoting low-carbon development pathways, benefits related to Climate Change Mitigation (CCM1 and CCM2) are the top priority for this IAP program. However, benefits related to Biodiversity (BD1 and BD4) and Chemicals and Waste (CW1) focal areas are also being addressed by some cities.

Complement country programming with transboundary, regional and global scale action

12. The IAP programs are designed to be anchored in a geographical context that reflects nature of the drivers and associated threats being tackled: the Food Security IAP program in dryland regions where the risk of degradation is exacerbated by effects of climate change; the global “supply chain” approach of the Commodities IAP program in countries that are major producers of beef, oil palm and soy, and where the current production is a major driver of deforestation; and the SC-IAP program within the context of existing frameworks for supporting countries and cities that are embracing low carbon pathways for urban development. As noted in the OPS6 “Evaluation of Programmatic Approaches in the GEF,” engagement by the GEF with countries was critical for clarifying areas of programmatic alignment with national priorities, which was noted as the most important factor in countries’ agreeing to participate in a program. It was due to this engagement that countries are able to more effectively program their STAR allocations under the programs.

13. The FS IAP program engaged twelve African countries (Burkina Faso, Burundi, Ethiopia, Ghana, Kenya, Malawi, Niger, Nigeria, Senegal, Swaziland, Tanzania and Uganda), all of which are located in the dryland regions of sub-Saharan Africa where the threat of environmental degradation and climate change is a major constraint to food production. The countries are well placed to harness good practices for long-term sustainability and resilience of food production by reducing land degradation and biodiversity loss, recovering natural vegetation and

increasing soil carbon. While the context and realities of each country is different, the program is designed to align with existing initiatives in the agriculture sector, which will then be coordinated regionally to promote learning and sharing of knowledge for greater impact across the drylands.

14. The Commodities IAP program is designed through the “supply chain” lens for each of the three commodities (beef, oil palm and soy), and in close consultation with four countries associated with their production: Brazil and Paraguay for soy and beef; and Indonesia and Liberia for oil palm.

15. The SC-IAP program is organized around two major priorities: a) to help individual cities promote integrated approach through actual investment of their priority; and b) to create a global platform for knowledge sharing among cities, primarily focusing on those from participating countries, but others as well. This framework will ensure that cities from the participating countries can harness state of the art thinking /methods of integrated urban planning, and at the same time share their experiences globally through networks of Mayors and city experts. The Global Platform for Sustainable Cities is a unique feature of the program with huge potential of scaling up of transformation.

Use GEF’s wider partnership to bring stakeholders together on a selected priority issues

16. The IAP programs have evolved through an extensive consultation and engagement process, involving a wide range of stakeholders and actors. As one of the key objectives of the programs is to catalyze wider action, the preparation process has been used to engage with a wider set of interested partners, and help define critical gaps and barriers to a broader and more integrated approach. Following the initial consultation with countries, agencies, GEF Secretariat and other relevant partners that led to development of the Program Framework Documents, each IAP program has been designed through a collaborative process. An inter-agency team created for each of the IAP programs in close coordination with the GEF Secretariat, has been instrumental in the design phase for engaging participating countries, other partners and co-financiers. The collaborative process was key to defining the best niche for GEF funds to enable and scale up the work of others, including stimulation of increased private sector engagement.

17. For each the IAP, stakeholder engagement and partnership was achieved through a two prong approach: a) participatory design processes for child projects at multiple scales – sub-nationally and nationally in participating countries, regionally (Sub Saharan Africa) and globally; b) stakeholder outreach process to explore and create opportunities for collaboration.

Participatory Design - The design phase of all AP programs fully embraced the participatory process, with countries, GEF agencies and a wide range of stakeholders involved. At the global and regional scales, consultation workshops and meetings were organized to identify priorities for implementation, create opportunity for, and explore the potential for establishing multi-stakeholder platforms for coordination, knowledge sharing and learning. Outcomes are reflected directly in child projects focused at this

level, including frameworks for program level monitoring, knowledge management, and alignment with country child projects. At national level, all participating countries organized consultation workshops to define priorities for advancing the integrated approach, including establishment of institutional frameworks. The extent of stakeholder engagement in the process is reflected in the individual projects as finalized and submitted for endorsement. Across all programs, key stakeholders include National Agencies and Ministries, Private Sector and International Non-governmental Organizations.

Stakeholder Outreach - Outreach to stakeholders has been an invaluable opportunity to position the *integrated approach* modality within the broader context of global discourse on the three major issues being tackled through the IAP programs. This was achieved through participation by the GEF Secretariat, Agencies, countries and technical partners in major conferences and events at global and regional scales. The discussions and consultations with a wide range of stakeholders played a key role in developing the overall Theory of Change for each IAP program, and at the same time helped to validate some of the key assumptions about the proposed approach. These are reflected in the cross-cutting and coordination child projects for each IAP program. As a result of awareness and sensitization created through the outreach process, the GEF also gained recognition for its role and commitment as a major partner in advancing sustainable and resilient pathways for development. As a result, the GEF was invited to join major alliances and initiatives, such as the Aspen Food Security Strategy Group and the Global Resilience Partnership (GRP), both of which involve several high profile leaders and institutions. The GRP involves the Rockefeller Foundation, US Agency for International Development, and the Government of Sweden, who have together committed \$150 million to help the global community pivot from being reactive in the wake of disaster to driving evidence-based investments that enable cities, communities and households to better manage and adapt to inevitable shocks.

18. Because of the complex and multi-dimensional nature of the environmental challenges being addressed through these programs, the transaction costs associated with coordinating stakeholder engagement during the design phase is undoubtedly high. However, the process has been crucial for each program, and will eventually pay-off as the institutional frameworks and platforms gain traction during the implementation phase.

Crowd-in private sector engagement to enhanced financial leverage and reinforcing GEF's catalytic role

19. An important aspect of the IAP programs was emphasis on private sector engagement. Across all three programs, the integrated approach created opportunities for a range of options to crowd-in private sector, from co-financing and parallel financing to creation of institutional platforms for catalyzing change. The IAP program design activities involved a wide range of private sector entities at national, regional and global levels.

20. For the FS IAP program, role of the private sector was perceived from two angles: 1) Increase in investment flows from financial institutions to support pathways for scaling up options for smallholder productivity, with private sector resources channeled toward pro-poor and pro-environment value chains; 2) participation by companies and businesses in innovative funding mechanisms and approaches to provide incentives for natural resource management. Based on the country child projects designed under the program, the trend indicates that private sector engagement and financing for smallholder agriculture could be a potential challenge across the continent. While different models are being explored, issues surrounding risks, market opportunity, and value-chain development are amongst the biggest constraints for access to finance by smallholder farmers. Hence, the countries have mainly focused on tackling these barriers in the hope of increasing financial flows or creating market opportunities.

21. For the Commodities IAP program, the design process involves a wide range of private sector actors along the entire supply chain for beef, oil palm and soy. These included platform or collaboration initiatives involving the private, businesses and companies, and financial institutions. In addition to engaging specific companies, the program has established direct links with Roundtables for Sustainable Palm Oil, Soy Traders Platform, the Tropical Forest Alliance, and Consumer Goods Forum.

22. For the SC IAP, private sector engagement is being driven largely through innovations and smart technologies. Technology providers such as Microsoft and ESRI will play a key role in supporting the integrated urban planning, including development of tools and indicators for monitoring.

Responding to the Rio+20 outcomes and evolving post-2015 agenda

23. The IAP programs collectively address the Rio+20 Outcomes on i) food security, nutrition and sustainable agriculture; ii) water and sanitation; iii) sustainable cities and human settlements; iv) climate change; v) biodiversity; vi) desertification, land degradation and drought; and vii) sustainable consumption and production. These are also embodied in the GEF2020 vision, which was the guiding framework for development of the IAP programs.

24. Although the IAP programs were already in the design phase when the SDGs were formally adopted by the world leaders, the alignment with program objectives and targets is demonstrated as follows:

- The FS IAP program responds directly to SDGs 2 and 15¹, with the focus on fostering long term sustainability and resilience through integrated management of natural capital – land, water, soil, and genetic resources – in the drylands of Sub-Saharan Africa. Through the integrated approach, child projects under the program also show strong linkages to SDGs 1, 6, 8, 12 and 13.²

¹ SDG 2- Zero Hunger; SDG 15- Life on Land

² SDG 1- No Poverty; SDG6- Clean Water and Sanitation; SDG 8- Decent Work and Economic Growth; SDG 12- Responsible Consumption and Production; SDG 13- Combat Climate Change

- The Commodities IAP program responds directly to SDGs 12, 13 and 15 by tackling the *expansion of commodity production* in the tropics, which is the underlying root cause of deforestation leading to loss of biodiversity, increasing GHG emissions and contributing to degradation of land and water resources. Through the integrated supply chain approach, the program also responds to SDGs 1, 2 & 8.
- The SC-IAP which focuses on addressing *urban sprawl* as major driver of environmental degradation, SDG 11 on Sustainable Cities and Communities is the main focus with indirect impacts expected on SDG 3, 7, 8 and 9.

25. *Gender Dimensions* - In addition to the SDGs indicated above, the IAP programs also take into account gender equality (SDG5). The approach largely focuses on gender mainstreaming through analyses to identify and account for differences in needs, roles and responsibilities, and opportunities for equal engagement of women and men. This will ensure that the programs are very much in line with the growing need to empower women and unleash their capabilities in tackling major drivers of environmental degradation.

26. *Resilience* - An important cross-cutting priority related to the SDGs is the issue of resilience, which is reflected SDG1 (target 1.5), SDG11 (Target 11.b), and SDG13 (Target 13.1). With guidance from STAP, resilience in the context of drivers being tackled through the IAP programs was defined as “*the capacity of a social–ecological system to absorb shocks and trends (e. g. drought) and reorganize so as to retain the same functions, structure, and feedbacks (i.e. the same identity).*” The approach for ensuring that resilience is built into the design of the child projects was driven largely by the unique contexts of each country. The STAP guidance note emphasized several key principles to ensure consistency across the programs: scope, scale and location of the project Engagement of stakeholders; advancing a theory of change, description and Assessment of the social-ecological, and adaptive implementation pathways and learning. These principles have been fully developed into a STAP Advisory Document on “*Designing projects in a rapidly changing world: guidelines for embedding resilience, adaptation and transformation into sustainable development projects,*” which was published in March 2016 and applied by a number of child projects specifically under the Food Security IAP program.

IAP PROGRAMS AT A GLANCE

IAP Program	Food Security	Commodities	Cities
GEF Agencies³	IFAD (Lead), CI, FAO, UNDP, UNEP, UNIDO, World Bank	UNDP (Lead), CI, IADB, UNEP, World Bank (IFC), WWF	World Bank (Lead), ADB, AfDB, DBSA, IADB, UNDP, UNEP, UNIDO
Program financing			
Program financing approved (USD)	106,359,290	40,332,518	137,522,072
Agency fees approved (USD)	9,572,336	3,629,927	12,403,984
Total financing approved (USD)	115,931,626	43,962,445	151,583,106
Indicative co-financing (USD)	805,361,640	443,200,000	1,478,647,433
Number of countries (directly involved)	12	4	11
Geographical coverage	Africa	Global	Global
Indicative, expected global environmental benefits			
Land under integrated management (ha)	5,000,000	23,000,000	-
Sustainable land management (ha)	5,000,000	1,000,000	-
GHG emissions avoided or reduced (MtCO_{2e})	10-20	100	106
Genetic diversity of crops and animals maintained or increased in the production landscape (%)	15-25	-	-
Land cover (increase, %)	10-20	-	-

³ Note: Lead GEF Agencies are responsible for overall coordination and delivery of the programs, while all other GEF Agencies listed are involved in design and implementation of at least one child project under the programs.

Box 1 – Highlights and Summary of Achievements (October 2016 – April 2017)

- All Child Projects under each of the IAP programs were successfully submitted before end of the commitment deadline of December 31, 2016. The projects are now either in the final stages of processing in the GEF Secretariat or have been endorsed by the CEO. A detailed summary of each child project under the IAP programs is now included in the current report.
- For the Food Security IAP program, the agencies and GEF Secretariat have continued to engage with various institutional frameworks for aligning the integrated approach in ongoing discourse on African agricultural transformation. Through a joint effort with UNDP, a detailed study of options and opportunities for investing in global environmental benefits in food value chains was completed. The findings will be validated at an expert workshop later this year, and contribute toward further advancement of the IAP program.
- For the Sustainable Cities IAP program, the World Bank has continued to engage with a diversity of actors in the urban sustainability sector. A more formal institutional arrangement for the Global Platform for Sustainable Cities (GPSC) is now taking shape, with engagement by WRI, ICLEI and C40 further strengthened for promoting peer-to-peer learning and networking across cities in the areas of sustainability planning, tools and indicators, and financial sustainability.
- For the Commodities IAP program, UNDP and participating GEF Agencies have continued to engage multiple actors within the sustainable forestry and agriculture sectors and along the entire supply chain – including, for example, platform or collaboration initiatives, private sector companies, development organizations, financial institutions, academia and think tanks. This has resulted in GEF contributing to a new Production, Protection and Inclusion Fund for de-risking commercial financing of deforestation-free land-use. The fund, which is led by the Government of Norway, is set to raise \$400 million by 2020 and could lead to over \$1.6 billion in deforestation-free agriculture investments.
- The GEF Secretariat and Agencies participated in several major conferences and events to continue stakeholder engagement and outreach for the IAP programs, including the following:
 - CBD COP13, Cancun, Mexico – The Sustainable Cities IAP program was presented at meeting on Cities and Biodiversity as a model for innovative financing for local action; the Food Security IAP was discussed as an opportunity to mainstream biodiversity at scale.
 - Tropical Forest Alliance (TFA) 2020 General Assembly, Brasilia, Brazil - The Commodities IAP program was presented for discussion.

FOSTERING SUSTAINABILITY AND RESILIENCE FOR FOOD SECURITY IN SUB-SAHARAN AFRICA (FOOD SECURITY IAP PROGRAM)

Introduction

27. The Food Security IAP is focused specifically on promoting sustainability and resilience through management of the natural resources – land, water, soils, trees and genetic resources – that underpin food and nutrition security. Agricultural transformation and intensification is a growing priority for all countries in sub-Saharan Africa. While investments in inputs, seeds and markets will result in short-term increases in productivity, lessons from elsewhere in the world suggest that gains will come at the expense of healthy soils, on-farm and landscape agro-biodiversity, and sustained flow of water. Through multi-stakeholder frameworks that engage smallholder farmer groups, private sector entities, governments and scientific institutions at national and regional levels, the IAP is advancing an integrated and holistic approach to environmental management for food security. The integrated approach will facilitate the scaling-up of practices that support aspirations for food security and generate global environmental benefits. It will promote the integrated management of natural resources in smallholder agriculture and thereby help smallholders strengthen soil health, improve access to drought-tolerant seeds, adjust planting periods and cropping portfolios, and enhance on-farm agro-biodiversity.

28. The Food Security IAP program responds directly to SDGs 2 and 15⁴, with the focus on fostering long-term sustainability and resilience through integrated management of natural capital – land, water, soil and genetic resources – in the drylands of sub-Saharan Africa. Through the integrated approach, child projects under the program also show strong linkages to SDGs 1, 6, 8, 12 and 13.⁵

29. In addition to the SDGs, the IAP program also takes into account gender equality (SDG 5). The approach largely focuses on gender mainstreaming through analyses to identify and account for differences in needs, roles and responsibilities, and opportunities for equal engagement of women and men. This will reflect the growing need to empower women and unleash their capabilities in tackling major drivers of environmental degradation.

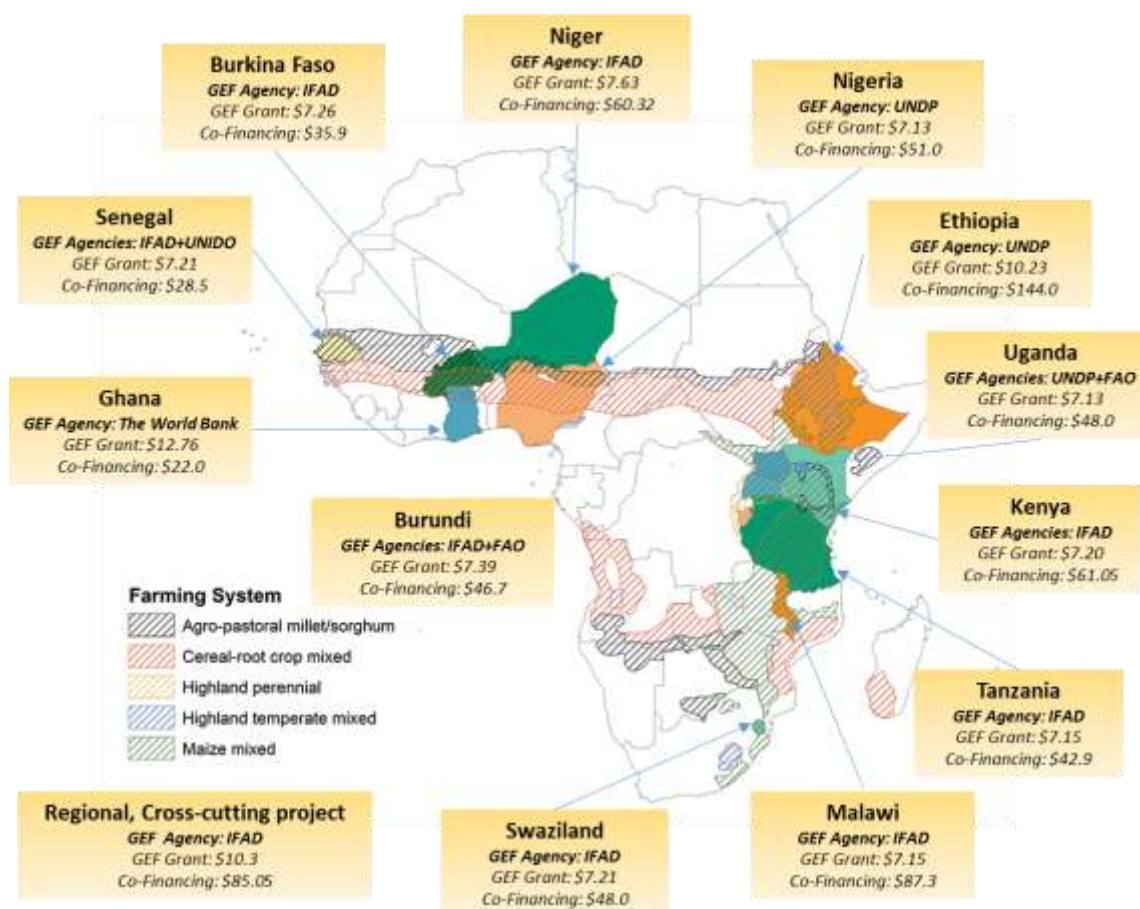
30. The IAP program is engaging 12 African countries (Burkina Faso, Burundi, Ethiopia, Ghana, Kenya, Malawi, Niger, Nigeria, Senegal, Swaziland, Tanzania and Uganda), all of which are at least partly located in the dryland regions of sub-Saharan Africa where the threat of environmental degradation and climate change is a major constraint to food production (Fig. 1). The countries are well placed to harness good practices for long-term sustainability and resilience of food production by reducing land degradation and biodiversity loss, recovering natural vegetation and increasing soil carbon. While the context and realities of each country are different, the program is being designed to align with existing initiatives in the agriculture

⁴ SDG 2- Zero Hunger; SDG 15- Life on Land.

⁵ SDG 1- No Poverty; SDG 6- Clean Water and Sanitation; SDG 8- Decent Work and Economic Growth; SDG 12- Responsible Consumption and Production; SDG 13- Combat Climate Change.

sector. Specifically, the program is enabling the creation or strengthening of institutional frameworks that promote integrated approaches in smallholder agriculture; promote scaling-up of interventions for sustainability and resilience; and ensure effective monitoring of ecosystem services and global environmental benefits through application of innovative tools and practices.

Fig. 1 - Coverage of dryland production systems and the Food Security IAP program countries



31. Resilience considerations in country projects have included mainstreaming into policy frameworks, strengthening the capacities (financial, knowledge) and capabilities (access to information, new technologies, diversified systems) of smallholder farmers and strengthening the institutions that influence the enabling environment. Monitoring and assessment of resilience is a key focus of all the programs, and will be fully embedded in the framework for each of the child projects.

32. In addition to country-level engagement, the program is being fully aligned with regional and global priorities for integrating environment and sustainable development. The IAP is reinforcing the commitments of the participating countries to implement the conventions (specifically UNCCD, CBD and UNFCCC) in an integrated manner that maximizes synergies and generates multiple global environmental benefits across conventions. The program is also

aligning with the Environment Action Plan and Comprehensive African Agricultural Development Program (CAADP) of the African Union. The regional and global engagement is being assured through a separate project that will support the 12 countries and ensure coherence and consistency in overall delivery of the IAP program.

33. During the period covered by this report, all 12 participating countries had successfully completed design of child projects and submitted the proposal packages to the GEF Secretariat. In addition, design of the regional and cross-cutting “hub” project was also completed and the package submitted. The table below summarizes status of projects relative to stages of processing for CEO endorsement.

Total Child Projects	# under Review in GEF Secretariat	# under 4-week Council Notification	# CEO Endorsed
13	-	3	10

Regional Programming

34. Since the last report to Council, design activities for the regional cross-cutting child project (or “Hub” project) were completed and the full proposal submitted to GEF Secretariat for CEO Endorsement. The overall goal of this project under the Food Security IAP program is to support countries in the dryland regions across sub-Saharan Africa to integrate environmental management into investments for improving smallholder agriculture and food value chains. The project will serve as the basis for aligning country-level engagement with regional and global priorities to harness opportunities for fostering sustainability and resilience. It will reinforce applied knowledge aspects of institutional frameworks, scaling-up, and monitoring and assessment of integrated approaches to natural resources management in each and across all country child projects in the IAP program. It will also establish and operate governance structure and process for coordination and general management of the program.

35. Roles and responsibilities have been clearly delineated among participating GEF Agencies and technical executing partners, and are based on the following organizing framework:

- Leveraging policy and scientific platforms/mechanisms to promote mainstreaming of ecosystem services, climate resilience and gender-sensitive approaches into food security policy and practice – *led by FAO and UNEP*
- Ensuring approaches and good practice in integrating sustainability and resilience into regional and national staple food crop value chains – *led by UNDP (with AGRA as executing partner)*
- Delivering agricultural advisory service/extension; opportunities for integration of participatory approaches to scale-up integrated natural resource management – *led by FAO*
- Leveraging existing tools and frameworks for monitoring of ecosystem services and socio-economic benefits of INRM and global environmental benefits for

impact assessment – *led by CI (with UNEP and Bioversity International as executing partners).*

36. A Project/Program Coordination Unit will be established in Nairobi and hosted by ICRAF, which will provide technical and administrative support. Other executing partners will contribute technical expertise to and/or through the PCU for delivery of the Hub project activities in their respective areas of responsibility. IFAD will hire a fee-funded full-time P4 level Task Team Leader to provide oversight of both the Hub project execution and, together with other IFAD staff and other GEF Implementing Agencies, the country projects. S/he will be particularly involved in PCU start-up. S/he will be based in Addis Ababa to engage on behalf of the program with key continental processes on food security, agriculture and environmental policy and practice agendas, with frequent travel to Kenya and other IAP program countries.

37. A completed draft of the project document is being reviewed and finalized for formal submission to the GEF Secretariat. As part of its coordination role, IFAD also continues to monitor the status of all child projects through a program database and documentation, which is updated as information is available from Agencies. In parallel, IFAD as the lead Agency has compiled comments from Agencies regarding (i) the FS-IAP Tracking Tool and (ii) the STAP Resilience Framework (RAPTA), which has also been used on a trial basis during the design of the Ethiopia country project.

Outreach and Stakeholder Engagement

38. During the period covered by this report, the GEF Secretariat and UNDP's Private Sector African Facility for Inclusive Markets (AFIM) Unit completed a collaborative activity to assess options and opportunities for integrating environmental management into food value chains in sub-Saharan Africa. As highlighted in the previous report to Council, the assessment builds on the work of UNDP's AFIM Unit on agri-food value chains in Africa, and is intended to add value to the IAP program through:

- (a) a knowledge product with synthesis of existing knowledge, experience and tools, and identification of potential entry points in major food value chains; and
- (b) an expert workshop to validate the synthesis with key actors from public and private sectors, including representatives from government, development partners, private sector companies, business and farmer associations, think tanks and academia.

The findings of the study have been compiled into a draft report, which will be presented and discussed at the expert validation workshop scheduled for May 2017.

Looking ahead

39. IFAD together with Agencies and the GEF Secretariat will convene a formal IAP program implementation launch event in Nairobi, Kenya in June 2017. During the event, country teams will share knowledge and experiences from the design phase and identify opportunities for learning and south-south exchanges during implementation. The event will also include a high

level forum to involve regional and sub-regional entities, as well as a field trip to showcase Kenya's innovative Water Fund, which will anchor the country's child project under the IAP program.

Country Programming

40. Of the 12 countries designing projects under the IAP program, 9 have either completed the process or are in the final stages during the period covered by this report. For reasons related mainly to institutional changes at national level, only *Burundi*, *Nigeria* and *Tanzania* have experienced delays during the design phase. It is expected that all three child projects will be ready before the 18-month cancellation deadline. Below is a brief summary of the child projects from the nine countries that have made progress or completed the design.

Burkina Faso

PROJECT TITLE: Participatory Natural Resource Management and Rural Development Project in the North, Centre-North and East Regions (Neer Tamba project)
GEF AGENCY: IFAD
GEF GRANT: US\$ 7.2 million
CO-FINANCING: US\$ 35.9 million
STATUS: CEO Endorsed

Context: In the Northern region of Burkina Faso, where 90% of 200,000 households (population of about 1.2 million in 2012) are smallholder farmers, growing demand for cultivable and grazing land, and wood for energy and construction, has led to diminishing forage resources, decline in wildlife resources, water scarcity (early depletion of water reservoirs and the water system), silting of watercourses and degradation of riparian areas, and conflicts over the use of natural resources. To address these challenges, the Government of Burkina Faso, with IFAD support, launched the Neer-Tamba project (2014-2022) to improve living conditions and incomes for rural households affected by poverty and food insecurity. The project, which also extends to the country's Eastern and North Central regions, aims at benefiting 190,000 rural households through: (i) building resilience to climate change and shocks; (ii) enabling households to acquire capacity for sufficient economic and financial autonomy; (iii) strengthening an enabling social and economic fabric in which the target groups are actors and partners. Through the IAP program, the Neer-Tamba project will be further enhanced to promote adoption and scaling-up of food security policies and activities that build resilience and sustainable management of the environment.

Objective: To promote and implement, within the framework of the Neer-Tamba project, sustainably managed agro-ecosystems that are key to food security in the Northern region.

Key components: The project is structured to focus on three components in line with the IAP program: (i) capacity building for national and regional multi-stakeholder platforms;

(ii) scaling- up integrated approaches to sustainable land management within agro-ecosystems; and (iii) coordination of arrangements including key indicators for decision-making on food security and environmental best practices. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional “Hub” project.

Stakeholder engagement: The project falls under the financial oversight of the Ministry of Economy, Finance and Development and the technical oversight of the Ministry of Agriculture and Water Development. Other key stakeholders include the Executive Secretariat, National Council on Food Security; Permanent Secretariat for Coordination of Agriculture Sector Policies; Ministry of Livestock and Water Resources; Ministry of Environment, Green Economy and Climate Change Permanent Secretariat, National Council on the Environment and Sustainable Development; National Bureau of Rural Chambers of Agriculture. The project will also directly engage 17,800 households representing 105,000 people as beneficiaries.

Global environmental benefits: Sustainable land management on 6,500 ha of sub-watersheds and 2,000 ha of lowlands; more than 1.9 metric tons of CO₂e emissions avoided per hectare (ha) per year, for a total of 12,621 metric tons of CO₂e over the life of the project.

Innovativeness, sustainability and potential for scaling-up: The Neer-Tamba project is part of an approach based on building resilience. To this end, the project proposes innovative activities based on social engineering to create and reinforce committees and associations at the sub-watershed level. The sustainability of interventions is ensured by the choice of practices and activities having proven their worth over decades, so that the rate of adoption by rural people will not be an issue. The project is intended to scale-up practices and arrangements recognized by the stakeholders, particularly farmers, both women and men, within the framework of the Neer-Tamba project, to sustainably anchor resilience to crisis in fragile territories.

Burundi

PROJECT TITLE:	Support for Sustainable Food Production and Enhancement of Food Security and Climate Resilience in Burundi's Highlands
GEF AGENCY:	FAO
GEF GRANT:	US\$7.3 million
CO-FINANCING:	US\$45.05 million
STATUS:	CEO endorsed

Context: Burundi is a landlocked country at the heart of Africa’s Great Lakes Region between the River Nile basin draining east and the Congo River basin draining west into the Lake Tanganyika. Burundi is characterized by an inadequate infrastructure network, a very low human development index (184th/188), a general lack of capacity, weak governance and high vulnerability to external shocks. Burundi is one of the poorest

countries in Africa: with a GDP of \$171 per capita in 2011; nearly 70% of the population lives below the poverty line of 1 US \$/day/person, and 85% of households face daily food insecurity. Burundi's economy is dominated by small-scale, predominantly rain-fed subsistence agriculture practiced by more than 90 % of the total population, occupying 50% of the country's land area. Land degradation in Burundi's highlands is leading to a decline in agricultural production, loss of agrobiodiversity and contributing to food shortages, food insecurity, chronic malnutrition, land and social conflicts, poverty, rural-urban migration and increased vulnerability to climate change.

Objective: To increase adoption of resilient, improved production systems for sustainable food security and nutrition through integrated landscape management and sustainable food value chains.

Key components: The project is based on the three following components: 1) Strengthened institutional framework and support mechanisms, 2) Improved livelihoods and food security through integrated watershed management, competent producers' organizations and sustainable food systems, and 3) Monitoring and assessment of global environment benefits and socio-economic impacts to inform decision making.

Stakeholder engagement: At the national level, the Ministry of Agriculture and Livestock (MINAGRIE) will be the lead government counterpart and coordinating agency in this project working in close collaboration with the Ministry of Water, Environment, Spatial and Urban Planning (MEEATU). At the provincial level, the decentralized structures of the two Ministries will be involved with the Provincial Directorates of Agriculture and Livestock (DPAE) and the Burundi Office for the Protection of the Environment (OBPE). At communal level, the project interventions will be supervised by the communal agronomist/zonal agronomist. The capacities of Farmer Field School Groups, cooperatives, and watershed committees will be reinforced to support local communities (the main beneficiaries of the project). The project is expected to have over 8000 beneficiaries.

Global environmental benefits: The project will deliver multiple GEBs with 1) 80,000 ha under SLM including an increase in diversified crop land productivity, 2) conservation and sustainable use of agro-biodiversity, with focus on key neglected/orphan crops across intervention areas (taro, *Colocasia esculenta*; finger millet, *Eleusine coracana*; cowpea, *Vigna unguiculata*; and pigeon pea, *Cajanus cajan*), and 3) carbon benefits by increasing the amount of biomass, soil organic carbon and the tree cover in the project area (direct benefits over a duration of 5 years of 120,000 tons of CO₂e; indirect benefits over a duration of 20 years: 1.8 million tons of CO₂e from the increase of tree cover and 560,000 tons of CO₂e from on-farm biomass/agriculture crops).

Innovativeness, sustainability and scaling up potential: The project is innovative by promoting a multi-sectoral approach and coordination at various level for SLM. Policy platform and knowledge sharing mechanisms will help in establishing national and local

level support systems. Different and innovative tools, notably to measure resilience, will also be used. The project interventions seek a viable anchor into existing local and institutional systems (local community planning systems to create favorable conditions to the conditions for sustainability. The lessons and good practices will be capitalized by the Field Farm Schools (FFS) and will be replicable and scaled out in collaboration with cofinancing partners. The systematization of knowledge management through platforms and various tools will support the replication and scaling up of project results in the country and across the region targeted by the IAP program.

Ethiopia

PROJECT TITLE: Integrated Landscape Management to Enhance Food Security and Ecosystem Resilience
GEF AGENCY: UNDP
GEF GRANT: US\$ 10.23 million
CO-FINANCING: US\$ 144 million
STATUS: CEO Endorsed

Context: Smallholder farming is the mainstay of Ethiopia’s economy across the six regions in which this project will be implemented. Farming takes place in often highly degraded and vulnerable environments where there is substantial loss of vegetation, associated erosion and declining soil fertility. Huge demand for biomass fuels exacerbates environmental degradation and affects food production. As a result of these occurrences, Ethiopia proposes to enhance long-term sustainability and resilience of the food production systems by addressing the environmental drivers of food insecurity. Ethiopia is also recognized as a “center of origin” and/or diversity for many crops of global importance, including Arabica coffee, tef, enset, sorghum and durum wheat, among others. Through the IAP program, six regions – Amhara, SNNP, Oromiya, Tigray, Afar and Somali – embedded in two of the global Biodiversity Hotspots (Eastern Afromontane and Horn of Africa) will be targeted. Support through the IAP program will therefore promote the adoption of production practices that increase the resilience of ecosystems (e.g. watersheds and rangelands) and their ability to function (e.g. increased soil carbon, carbon sequestration) and provide ecosystem goods and services.

Objective: To enhance long-term sustainability and resilience of food production systems by addressing the environmental drivers of food insecurity in Ethiopia. The overarching focus is on integrated landscape management (ILM) to achieve food production resilience in landscapes under pressure.

Key components: This project is organized around three integrated components that support the capacity of institutions for sustainable and resilient food production systems, promotes scaling-up of ILM in smallholder productions systems in degraded landscapes throughout the country and facilitates monitoring, assessment of resilience and learning across scales, including at farm/household levels, regional planning levels and national policy-making levels: (i) institutional frameworks for enhanced biodiversity

and ecosystem goods and services within food production systems; (ii) scaling-up the integrated landscape management approach to achieve improved productivity of smallholder food production systems and innovative transformations to non-farm livelihoods; and (iii) knowledge management, learning, monitoring and assessment. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional “Hub” project.

Stakeholder engagement: This project will bring together a variety of stakeholders at all levels of the food production systems to coordinate and establish synergies across sector line ministries, with non-governmental and private sector actors. At national level, major stakeholders include the Ministry of Environment, Forest and Climate Change, Ministry of Agriculture and Ministry of Finance and Economic Development. Other stakeholders include community members and groups of resource users and managers at local levels, NGOs, associations and other national and international agencies, local universities in respective zone/regions related to the 12 targeted geographies, local authorities of Oromia, Amhara, Tigray, Afar and Somali Regional States, and the Woreda Agricultural, Water and Energy and Environment Protection and Land Use Offices. The project will engage 120,000 households as direct beneficiaries across 6 of the 12 geographies, and indirectly up to a total of 1.4 million people across all 12 geographies.

Global environmental benefits: Integrated landscape management on 120,000 ha to maintain globally significant biodiversity and the ecosystem goods and services; sustainable land management in production systems (agriculture, rangelands and forest landscapes) in an estimated 720,000 ha. Estimates of GHG emission and biodiversity benefits will be established at project inception.

Innovativeness, sustainability and scaling-up potential: The project approach combines land management choices and Integrated Natural Resources Management (INRM) with water and climate-smart agriculture, value chain support and gender empowerment. In addition, the premise of the project is based on cost efficiency of making use of synergies across landscape management, food security and value chain development and sustainability. In mainstreaming integrated landscape management through markets, economic production systems (assuming rational choice approaches) the project expects to bring together ecosystem sustainability, increased food security and financial benefits for local communities. The project will also introduce and integrate a value-chain approach to food production to reduce post-harvest losses. It will apply a holistic and integrated approach involving engagement with and cooperation between different stakeholders to unlock the constraints along value chains leading to more efficiency for both producers and consumers. This output will integrate value chains with production systems at project sites, with a specific (though not exclusive) focus on dairy marketing and the links between zero grazing, livestock fattening and biomass energy consumption by households. The project will also promote mechanisms that

foster the use of risk insurance and improve the dissemination of information on food stocks and will identify innovative funding mechanisms and apply them at the 12 pilot sites.

Ghana

PROJECT TITLE: Sustainable Land and Water Management Project
GEF AGENCY: World Bank
GEF GRANT: US\$ 12.76 million
CO-FINANCING: US\$ 22 million
STATUS: CEO Endorsed

Context: The project is seeking to scale up activities to facilitate implementation on a larger geographic scale and expand the range of sustainable land and water management interventions in Northern Ghana. The activities are based on the landscape approach in Upper Ghana's savanna, which is characterized by vulnerability, low climate resilience and high poverty. The project builds on previous GEF investments in the region, which has benefited over 24,000 people and helped to reinforce national capacities in spatial planning and implement local platforms at watershed and community levels. In addition, Community Resource Management Areas were designed and managed for sustainable natural resource management in wildlife Corridors and the protection of the Gbele Resource Reserve was reinforced with management planning and training activities. The current project under the IAP Program is intended to help the government harness existing systems, structures and capacities developed to further improve food security using a landscape/ecosystem.

Objective: The Sustainable and Water Land Management Project is currently financed by the GEF and in-kind contribution from the Government of Ghana. The project implementation started in May 2011, with a first additional financing in May 2014. The proposed child IAP project will be considered as an Additional Financing, building on the enabling existing systems, structures and capacities developed under the SLWMP to improve food security using a landscape/ecosystem approach.

Key components: The IAP support is structured around the following components in line with the IAP program framework: (i) integrated spatial planning; (ii) land and water management (systems, capacity and monitoring for sustainable land and water management (SLWM); and (iii) implementation of SLWM in micro-watersheds (sub-projects), including national SLWM and Payment for Environmental Services monitoring, and management of riparian and other biological corridors.

Stakeholder engagement: Preparation of the project included extensive consultations with a wide range of stakeholders and these continue during implementation. The project is implemented by the Ministry of Environment, Science, Technology and Innovation (the project coordinating entity) jointly with the Ministry of Food and Agriculture, Environmental Protection Agency, Wildlife Division (of the Forestry

Commission) and Forest Services Division (of the Forestry Commission). At the national level, the project engages the National Sustainable Land Management Committee, which is responsible for providing overall guidance for implementation of the Ghana Strategic Investment Framework [for SLM] funded through the TerrAfrica Program. Target beneficiaries to be engaged are expected to increase from a baseline of about 30,000 in 2016 to 60,000 in 2020, with women making up 40% of this group.

Global environmental benefits: Sustainable land management covering more than 9,000 ha; integrated management of landscapes covering 1 million ha; and GHG mitigation of more than 45 million metric tons of CO₂e over the life of the project.

Innovativeness, sustainability and scaling up potential: The Ghana SLWM project supports a comprehensive landscape approach to sustainable land and watershed management at the community level with planning activities at the regional and district levels. It links sustainable management of ecosystems at the landscape level with improved food security and poverty reduction at community level. This is expected to generate triple-win situations that combine agricultural productive increase with enhancement of ecosystem services and improvements of livelihoods, incomes and food security. Significantly, the project also combines elements of sustainability through supporting postharvest management improvements as part of the value chain work and further reduces pressures on common pool resources by providing additional support to non-destructive uses of forests, including through use of the non-timber forest products (NTFPs). Strategic planning, government commitment and long-term engagement in natural resources management are providing a strong basis for innovation in Ghana.

Kenya

PROJECT TITLE:	Establishment of the Upper Tana Nairobi Water Fund (UTNWF)
GEF AGENCY:	IFAD
GEF GRANT:	US\$ 7.2 million
CO-FINANCING:	US\$ 61 million
STATUS:	CEO Endorsed

Context: Forests and wetlands in the project target area (Upper Tana) play an important role in maintaining water quality and quantity, providing areas where runoff water and sediment can be stored and filtered naturally. However, significant growth of the agriculture sector in the area has led to sedimentation, reducing the capacity of reservoirs and increasing the cost for water treatment. The challenges to water security will likely increase as climate change brings unpredictable rainfall, equally challenging the resilience and food security of upstream smallholder farming systems.

Objective: The proposed child project aims for a well-conserved Upper Tana River basin with improved water quality and quantity for upstream and downstream users, maintaining regular flows of water throughout the year and enhancing ecosystem services.

Key components: The project is structured around three principal components, seeking to (i) institutionalize the Upper Tana-Nairobi Water Fund (UTNWF) Platform for policy development and institutional reform, and develop incentives for climate-smart smallholder agriculture; (ii) enable the adoption of sustainable land management practices in the Upper Tana catchment ecosystems; and (iii) develop the requisite institutional and technical capacities for effective monitoring and assessment of global environmental benefits and resilience. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional “Hub” project.

Stakeholder engagement: The UTNWF will be developed as a multi-stakeholder platform involving public and private sector entities. Key stakeholders from government include the Ministry of Environment and Natural Resources, National Museums of Kenya, Water Resources Management Authority and Kenya Forest Services. The Nature Conservancy is technical partner, while private sector entities include the Nairobi Water and Sewerage Company. A total of 21,000 smallholder farmer households will be directly engaged and the total number of beneficiaries will be over 90,000 people.

Global environmental benefits: Improved land management covering more than 1 million ha, including 337,000 ha under sustainable land management practices; GHG mitigation of more than 1.6 million metric tons of CO₂e.

Innovativeness, sustainability and scaling-up potential: The proposed child project is consistent with the overall goal and theory of change of the food security IAP, and draws on IFAD's successful past investments in the Upper Tana catchment. The project will enable the establishment of a first-of-a-kind water fund in Africa and will therefore contribute valuable lessons to other countries facing similar challenges related to the food, water and agriculture nexus. With strong private sector support from the outset, the project is expected to have major catalytic effects well beyond its completion.

Malawi

PROJECT TITLE:	Enhancing the Resilience of Agro-ecological Systems Project (ERASP)
GEF AGENCY:	IFAD
GEF GRANT:	US\$ 7.1 million
CO-FINANCING:	US\$ 87.3 million
STATUS:	CEO Endorsed

Context: In addition to the challenges of land degradation and deforestation caused by population growth, as well as housing and agriculture sectors, Malawi is vulnerable to a number of climatic hazards, the critical ones being floods, droughts and dry spells, strong winds, hailstorms, pest infestations and disease epidemics. Together with IFAD under the IAP program, the Government of Malawi will implement the ‘Enhancing the Resilience of Agro-ecological Systems Project’ (ERASP), building primarily on the Program for Rural Irrigation Development (PRIDE), which is the co-financing baseline

investment. In addition, it will make programmatic links with another IFAD-funded intervention – the Sustainable Agriculture Production Program (SAPP) – which is supporting rain-fed agriculture and research and extension services for the adaptation and adoption of Good Agricultural Practices, including in particular conservation agriculture. ERASP applies an ecosystem-based approach to improving food security, which complements the infrastructure-based approach undertaken in PRIDE.

Objective: The overall project objective is to enhance the provision of ecosystem services and improve the productivity and resilience of agricultural systems of vulnerable rural poor. This objective encompasses three sub-objectives of addressing land degradation, loss of agro-biodiversity and climate change adaptation and mitigation.

Key components: The project will be delivered through three components in line with the IAP program framework: (i) multi-stakeholder institutional framework for integrated catchment area management; ii) scaling-up catchment-level, sustainable land management practices; and (iii) monitoring and assessment of ecosystem services, resilience and food security. ERASP will promote interventions in three districts covering an estimated 35,000 ha and involving 25,680 farmers. The proposed approach focuses on a more comprehensive landscape planning process for the sub-catchments, adds an agro-ecological approach to improving food security, and raising agricultural yields on rain-fed farming systems through climate-smart and conservation agriculture techniques, supported by credit provision through village lending and savings clubs. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional “Hub” project.

Stakeholder engagement: At national level, the Ministry of Agriculture, Irrigation and Water Development and the Ministry of Natural Resources, Energy and Mining, which houses the Environmental Affairs Department, and the Ministry of Finance have all been key stakeholders during the design phase. Government agencies include the Department of Land Resources and Conservation, Department of Forestry, Department of Fisheries, Department of Animal Health and Livestock, Department of Agricultural Extension Services, and Department of Disaster Risk Management. Other stakeholders include local universities, CSOs, and local-level authorities in the target landscapes. The total number of beneficiaries to be engaged directly by the project will be over 32,000, almost evenly split between men and women.

Global environmental benefits: Integrated land management on 13,065ha (rehabilitated land); GHG emission of 1,774,907 metric tons of CO₂eq avoided annually; and conservation of genetic diversity on 2,000 ha.

Innovativeness, sustainability and scaling-up potential: Sustainability of the project approach will be generated through a strong incentive framework. In addition, sustainability in the adoption of SLM practices will be promoted through supporting a

motivated and knowledgeable extension service through recruitment of facilitators to fill the gaps, greater technical support from the extension network and investing in work ‘enablers’ at the extension level to secure greater involvement in results monitoring and reporting. In addition, advocacy and knowledge management (KM) are essential to scale-up the ecosystem-based approach in food security strategies. These KM reporting and dissemination strategies have been built into the project components.

Niger

PROJECT TITLE: Family Farming Development Program (PRODAF)
GEF AGENCY: UNDP
GEF GRANT: US\$ 7.6 million
CO-FINANCING: US\$ 60.3 million
STATUS: CEO Endorsed

Context: The high vulnerability of family farming in Niger to climate variability is amplified by the effects of climate change, which affect livelihoods over both the long term (production potential: fertility, soil, water) and short term (post-crisis decapitalization), with a negative impact on food and nutrition security. The Tahoua, Maradi and Zinder regions, which are the most productive, are also the most affected by erosion (wind and water), leading to siltation of watersheds, deforestation and declining groundwater levels.

Objective: To mitigate these threats and facilitate the sustainable access by local populations to water and land resources available in the watersheds (basins and valleys), the Government of Niger through the IAP program will promote soil and water conservation and soil protection and restoration works (structures) on a large scale (see Fig. 2). The objective is to sustainably increase the incomes of family farms, their adaptation to climate change and their access to local, urban and regional markets.

Key components: The project will focus on two key outcomes focused on (i) sustainable family farming to allow rural producers, including women and youth, to diversify their production, increase their yields and build their capacities to adapt to external shocks, notably those related to climate; and (ii) access to markets to help farmers market more efficiently their agro-silvo-pastoral production surplus in semi-wholesale markets that supply the centers of national consumption and transboundary markets. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional “Hub” project.

Fig 2. Overview of the soil and water conservation, soil protection and restoration, and agroforestry practices in the Sahel



Stakeholder engagement: The lead agency for the project at national level is the Ministry of Agriculture and Livestock, which will work closely with the High Commission for the Initiative on Nigeriens feeding Nigeriens (HCi3N). Major stakeholders include Regional Directorate of the Environment, Water User Associations, local authorities (communes), Public Building and Works, regional and departmental services for waterworks, specialized service providers and the Regional Agriculture Chambers. To identify or introduce innovative practices, the program will also engage local research institutions and centers of excellence, including the National Institute for Agricultural Research of Niger, the International Center for Research in the Semi-Arid Tropics (for agricultural practices and innovative plant material) and the AGRHYMET Regional Centre (for observation and management of climate risks). The project will engage over 22,400 households or close to 157,000 people (including 30% women and 30% youth) as direct beneficiaries.

Global environmental benefits: Sustainable land management covering 190,800 ha; integrated management of landscapes covering 40,000 ha; and GHG mitigation of more than 346,302 metric tons of CO₂e.

Innovativeness, sustainability and scaling-up potential: Two innovative aspects of the project will contribute towards achieving the development objective: (i) strengthening sustainable family farming; and (ii) improving market access for family farms. Strengthening institutional capacities starting from the national level program, "Nigeriens feed Nigeriens" (i3N) and including the management of environmental and

climatic constraints in local planning processes, will allow for local scaling-up of the program's activities.

Nigeria

PROJECT TITLE: Integrated Landscape Management to Enhance Food Security and Ecosystem Resilience in Nigeria
GEF AGENCY: UNDP
GEF GRANT: US\$ 7.1 million
CO-FINANCING: US\$ 57 million
STATUS: Under Council Notification

Context: The project will work in 70 communities, in 14 Local Government Areas of Northern Nigeria, in three main different agro-ecological zones: guinea-savanna of the North-central region, Sudan-Sahel Savanna of North-Western region, and Sudan Savanna of the Northern-East region. The Theory of Change is based on the recognition that food security is the product of both socio-economic and environmental factors. Addressing these factors requires both coherent policies and institutions that influence the ability of farming households to foster sustainable food security and address critical shocks in order to enhance the resilience of food production systems. A landscape approach, integrating resilience of land use systems, natural resource management and livelihood security will be the key.

Objective: To foster sustainability and resilience for food security in northern Nigeria through addressing key environmental and social-economic drivers of food insecurity across three agro-ecological zones.

Key components: The project will be delivered through three interrelated components: Component 1 will enhance the policy and institutional enabling environment for achieving improved food security, including the development of PPP for major food crop value chains (cassava, rice, and Sorghum); Component 2 will scale up sustainable land and water management and climate-smart agricultural practices, targeting women and youth groups in particular; under this component, a support will target the better commercialization of eight targeted commodities (groundnuts, maize, rice, sorghum, cowpea, yam, poultry, dairy), but also fruit trees and aquaculture. The project will build on previous experiences and partnership with the African Facility for Inclusive Markets for (AFIM), IITA and ICRISAT; Component 3 will put in place an effective and functional monitoring, assessment and knowledge-sharing system to evaluate the impact of project interventions on food production and household and ecosystem resilience, including global environmental benefits. The Vital Sign monitoring framework will be used

Stakeholder engagement: The lead national partner is the Federal Ministry of Agriculture and Rural Development who will chair the project steering committee. Other

participating Ministries include those in charge of the Environment, the Water Resources, the Women Affairs, and the Budget and Planning. State and Local governments from the seven participating States will support the implementation of the project. Local communities are the critical managers and user of agro-pastoral ecosystem resources in the project area and will be the main beneficiaries. In addition, CSOs, universities, and research Institutions will be engaged for advocacy, mobilization, training, research, technical inputs and knowledge sharing.

Global environmental benefits: The project will generate multiple benefits including 385,000 ha of agricultural landscapes under SLM (including 10% reduction in soil erosion, 20% increase in vegetation cover, and 20% increase in crop production). Development and local benefits will also be important with the development of National platforms and frameworks, as well as with the National Sustainable Food Security Resilience Framework, from which a significant number of gender balanced beneficiaries (50,000) and jobs are expected.

Innovativeness, sustainability and scaling-up potential: The project has substantial opportunities for sustainability and scaling up in the context of Nigeria's current move to achieve food self-sufficiency. The project will reinforce the institutional framework, but will also reinforce the local private sector. The project will be innovative by supporting new activities, including food transformation. Lastly, the project works in the three main agro-ecological areas present in the Northern Nigeria to develop a range of responses and packages tailored and specific for scaling up in the considered region.

Senegal

PROJECT TITLE:	Agricultural Value Chains Support Project (PARFA)
GEF AGENCIES:	IFAD and UNIDO
GEF GRANT:	US\$ 7.21 million
CO-FINANCING:	US\$ 28.5 million
STATUS:	CEO Endorsed

Context: Senegal is facing significant constraints within the agricultural sector resulting from (i) climate variability; (ii) land degradation, increasing pressures on natural resources and leading first to overexploitation of forests, ecosystems and land, and ultimately to salinization and acidification of arable land; (iii) stagnation of yields related to land degradation and weak technological innovations; and (iv) difficult access to credit, quality inputs and agricultural equipment. Through the Agricultural Value Chains Resilience Support Project (PAFA-E), the Government of Senegal is tackling these challenges by promoting sustainable improvement of family farms in the groundnut basin and silvo-pastoral regions. The specific objective of the project is to sustainably improve food security and incomes of smallholder farmers (crop and livestock), and to create sustainable and remunerative employment for rural people, especially youth and women.

Objective: Through the IAP program, the PARFA will support Senegal in integrating priorities to safeguard and maintain ecosystem services into investments in improving smallholder agriculture and food value chains.

Key components: To deliver global environmental benefits at scale, critical points in the causal chain of environmental degradation where GEF support can achieve maximum impact have been identified: (i) transforming policy and institutional frameworks at the agriculture-environment nexus; (ii) convening of multi-stakeholder alliances that bring together stakeholders from the public and private sectors, donors, scientific community and civil society; (iii) demonstrating innovative approaches in integrated natural resources management promote their scaling-up; and (iv) strengthening institutional capacity in monitoring and assessment of global environmental benefits, food security and resilience to improve investment decision-making processes. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional “Hub” project.

Stakeholder engagement: At national level, the major stakeholders include the Ministry of Agriculture and Rural Equipment, Institut de technologie alimentaire (Institute of Food Technology); Le Commissariat à la sécurité alimentaire, Agronomes et vétérinaires sans frontières; L'Institut national de pédologie, innovation, environnement, développement; Le Centre de suivi écologique; Agence nationale de conseil agricole et rural (National Agricultural and Rural Advisory Agency); National Renewable Energy Agency; and the Office for Rural Boreholes. Other major stakeholders include the National Agricultural Credit Fund of Senegal to support rural finance, and service providers for agriculture and livestock farming. The project will engage around 52,500 people (5,250 households) as beneficiaries in vulnerable communities across the targeted agro-ecological zones, of which about 40% are women and youth.

Global environmental benefits: The project will generate multiple global environmental benefits through rehabilitation of vegetative cover, including mangroves (carbon storage and conservation of biodiversity) and water resource conservation. Improved land management covering over 1,800 ha; integrated management of landscapes covering over 2,100 ha; potential mitigation benefits include a reduction of 130.42 metric tons of CO₂e and storage of 4.5 metric tons per ha per year of CO₂e, for a total of more than 112,000 metric tons of CO₂e.

Innovativeness, sustainability and scaling-up potential: A key innovative element of the project is the systematic integration of resilience assessment into Program activities. Efforts in scaling-up will be made by capitalizing on the demonstrative nature of the project (e.g. replicable models of renewable energy, integrated production systems). Efforts will also be made to promote the setting up of a financial window on sustainable land and environmental management (SLM)/resilience through the National Agro-sylvo-pastoral Development Fund. These efforts would support and help finance the scaling-up of best practices and encourage sustainability.

Swaziland

PROJECT TITLE: Climate-Smart Agriculture for Climate-Resilient Livelihoods (CSARL)
GEF AGENCY: IFAD
GEF GRANT: US\$ 7.2 million
CO-FINANCING: US\$ 48 million
STATUS: CEO Endorsed

Context: The main drivers of degradation in Swaziland are increasing human population, soil nutrient mining within farmlands, growing livestock populations on communally grazed rangelands, land tenure arrangements and deforestation, and climate change. This has led to undermining of the resource base, loss of biodiversity and reduction in ecosystem services that are fundamental to improved production, thereby contributing to impoverished rural livelihoods. To address the interconnected challenges of rural poverty, food insecurity and environmental degradation, the Government of Swaziland through the IAP program aims to introduce a paradigm shift toward integrated, multi-stakeholder development planning at the local level, where land, water and other natural resources are sustainably managed and harnessed as a driver of growth. The proposed CSARL project will be closely associated with IFAD's Smallholder Market-Led Program, which will strengthen market linkages and promote the scaling-up of the resilient and sustainable agricultural production practices and approaches introduced through GEF financing.

Objective: The CSARL project aims to enhance the food and nutrition security, as well as promote the livelihoods of smallholder farmers through diversified, climate-resilient agricultural production practices and associated market linkages.

Key components: The project is structured around three principal components, seeking to (i) promote integrated, multi-stakeholder development planning processes in 37 chiefdoms; (ii) scale-up sustainable land and water management practices; and (iii) strengthen capacities at the national and sub-national levels to monitor ecosystem services and resilience, and to carry out associated knowledge sharing and reporting activities. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional "Hub" project.

Stakeholder engagement: The Ministry of Finance will provide oversight and liaise with IFAD and GEF throughout implementation. Major stakeholders at national level include the Ministry of Agriculture, Swaziland Water and Agriculture Development Enterprise, Swaziland Environment Authority and the Swaziland Meteorological Service. The Rural Development Areas, local NGOs, and the Inkhundla (Parliamentary Constituency) will play a key role in activities at the chiefdom level. The project will directly engage more than 90,000 people as beneficiaries.

Global environmental benefits: At a broader scale, the project will help communities address management of rangelands, eroded areas and forests. The SLWM activities build climate resilience into the production system and foster biodiversity, while combating climate change through sequestration of carbon in soils and vegetation. Specific benefits include improved land management covering more than 30,000 ha and GHG mitigation of more than 1.3 million metric tons of CO₂e.

Innovation, sustainability and scaling-up potential: The proposed child project is consistent with the overall goal and theory of change of the food security IAP, and draws on IFAD's experience of similar projects in Swaziland. Significant investments in the direct implementation of sustainable land and water management, as well as the monitoring of ecosystem services and resilience in agricultural production systems and the wider landscapes, will ensure the project contributes to the evidence base for integrated approaches to addressing food security nationally.

Tanzania

PROJECT TITLE: Reversing Land Degradation Trends and Increasing Food Security in Degraded Ecosystems of Semi-Arid Areas of Tanzania (LDFS)
GEF AGENCY: IFAD
GEF GRANT: US\$ 7.8 million
CO-FINANCING: US\$ 52.9 million
STATUS: Under Council Notification

Context: The LDFS project in Tanzania focuses on advancing the integrated approach to sustainability and resilience in geographies with high level of poverty, food insecurity, malnutrition of children under 5 years old, land degradation and average annual rainfall. The project is based on the recognition of the inextricable links between healthy ecosystems and productive food systems and food security. It seeks to leverage better natural resources governance and management approaches at all levels to enable communities to derive more stable, resilient and secure livelihoods in the short and long-term. In line with the overall program Framework, the proposed approach focuses on scaling up of successful production practices and approaches across the targeted geographies as a means of tackling socio-economic and biophysical constraints. The project area covers twenty-two villages in five districts - Kondoa, Mkalama, Nzega, and Magu in Mainland Tanzania and Micheweni in Zanzibar (Pemba Island) - where production activities are focused largely in semi-arid agro-ecosystems.

Objective: The project goal is to improve food and nutrition security in the targeted villages through sustainable land and water management and ecosystem-based adaptation. The specific objective is to reverse land degradation trends in central Tanzania and Pemba (Zanzibar) through sustainable land and water management and ecosystem-based adaptation. This will be achieved through introduction of enhanced production and natural resource use practices, such as conservation farming, sustainable land and water management and ecosystem-based adaptation.

Stakeholder Engagement: The project framework is anchored nationally in the Vice Presidents, which has enabled a broad stakeholder engagement process that includes key line ministries (agriculture, livestock, environment, water resources, and fisheries), government agencies, and existing national initiatives in the agriculture sector. This extends to the district level where local governance and technical entities were directly engaged in the project design. In each district, the project area covers one or two wards with two or more villages (in total 22 villages) sharing the same resources in a landscape. The total population in selected villages is over 69,000 individuals, and the project's interventions will reach 30,000 as direct beneficiaries, including women and youth.

Key Components: The project framework includes four components: Component 1 will set the enabling conditions for sustainable land and water management at landscape level sustaining ecosystem services and enhancing food security. It will strengthen institutional capacity at inter-village and district levels and establish inter-village committees with the goal of developing landscape level inter-village participatory resources and livelihood diagnostics and land use planning processes to foster an integrated and holistic management of natural resources. Component 2 will support the implementation of sustainable land and water management priorities, conservation farming practices, rehabilitation and sustainable management of rangeland and wood land resources, and agreed income generating activities. Component 3 will focus on monitoring and assessing the progress in sustaining ecosystem services, household resilience and food security. Based on assessment results Component 3 will also support incorporating lessons learned in local and district level natural resources governance systems and contributing to the continuous improvement of the landscape level approach to natural resources management, supporting integration of best practices in policy making at the district, regional and national levels.

Global Environmental Benefits: The project interventions will turn 9,000 hectares into conservation and climate-smart farming and sustainable management, as well as 500 hectares of degraded land into reforested area. The project will also contribute to climate change mitigation through GHG emission avoidance of 307,607 metric tons of CO₂e and creation of carbon sinks of up to 915,247 metric tons CO₂e.

Innovation, sustainability and scaling-up potential: Innovativeness is demonstrated through a) establishment of inter-village NRM committees as a forum for participatory planning and management of shared natural resources at the landscape level, with inclusion of vulnerable groups such as women headed households, pastoralists and hunter-gatherers. b) adoption of a landscape approach to emphasize a multifunctional perspective, combining natural resources management and sustainable use with food security and livelihood considerations. The latter recognizes that landscapes and ecosystems span beyond village and ward administrative boundaries and a more collaborative and participatory approaches, including all resources users, are needed to enable more adaptive forms of management. This will allow for building climate change

resilience of ecosystems and their services through adaptation and application of SLM practices, as well as for identifying and implementing conservation measures for habitats important for maintaining the biodiversity in production systems.

Uganda

PROJECT TITLE: Fostering Sustainability and Resilience for Food Security in Karamoja sub-region
GEF AGENCIES: UNDP and FAO
GEF GRANT: US\$ 7.1 million
CO-FINANCING: US\$ 58 million
STATUS: CEO Endorsed

Context: This project seeks to respond to chronic food insecurity in the Karamoja sub-region, which is a result of combined pressures, including environmental degradation and climate change. The vast majority of people in Karamoja are facing food shortages, either yearlong or seasonal, and the sub-region has been exposed to increasing droughts.

Objective: To contribute to enhancing long-term environmental sustainability and resilience of food production systems in the Karamoja sub-region. The goal of the project is to improve food security by addressing the environmental drivers of food insecurity and their root causes in Karamoja sub-region.

Key components: To achieve this objective, the project will support three components: (i) establishment of stronger district and landscape-based planning frameworks that support community-based land-use planning; (ii) scaling-up of improved production technologies with a view to increase yields, diversify food production and increase incomes, while conserving natural resources; and (iii) monitoring and assessment as a tool to inform scaling-up and policy change. Cross-cutting aspects related to value chains, capacity building and knowledge management will be further strengthened through direct support from the regional “Hub” project. The project will directly benefit 14,700 people, of whom half are women.

Stakeholder engagement: The project brings together and facilitates coordination between different stakeholders, primarily through the facilitation/establishment of multi-stakeholder platforms/forums at local, regional and national levels. The role of these platforms/forums is to create a space where all stakeholders can be involved in dialogue and decision making on land and water governance, land-use planning, legal frameworks, access to information (SLM and INRM options, value chains, food security and nutrition), and development planning priorities from a sustainability and resilience perspective. Key stakeholders at national level include the Ministry of Agriculture, Animal Industries and Fisheries (Zonal Agricultural Research and Development Institute); Ministry of Water and Environment; Ministry of Energy and Mineral Development; Ministry of Lands and Urban Development; Ministry of Trade, Industry and

Cooperatives; Office of the Prime Minister; National Forestry Authority; National Environmental Management Agency; and the Office of Karamoja Affairs. Within the target geography, key stakeholders include the district local governments in the Karamoja sub-region, land users, their groups and leaders, NGOs and CSOs.

Global environmental benefits: Integrated management of landscapes covering 4,920 ha; and GHG mitigation of 480,508 metric tons of CO₂e.

Innovativeness, sustainability and scaling-up potential: Bearing in mind that the project is located in a risk-averse area, the project seeks to build on proven successful practices, systems and mechanisms. The concept of a multi-stakeholder platform is a relatively innovative one in the Karamoja context. The use of such platforms as both beneficiaries and actors in the project will support the emergence of new patterns of cooperation among the different social groups. It is also expected that private sector participation in these platforms will contribute to stronger market organization and to increasing demand for sustainable production. The use of these platforms as mechanisms for land-use planning, within the current system, could also be an innovation, particularly if issues related to land rights are considered. The project will also seek to introduce technical innovations and to pilot SLM/INRM technologies that have not yet been promoted in the Karamoja sub-region. This includes, for example, rainwater harvesting or rangeland rehabilitation techniques, in addition to sustainable and climate-smart land management practices in crop, grazing and forest lands. The project will also seek to promote alternative sources of livelihoods within existing value chains by using the strong agro-pastoral traditions to take communities from subsistence to (where feasible) more market-oriented practices.

Transformation and value addition will provide welcome innovations in an area where traditional livelihoods are weakening. Finally, the project will also innovate through the creation of mechanisms for monitoring and assessing resilience through a series of indicators that combine natural resources, ecosystem services and community well-being.

SUSTAINABLE CITIES INTEGRATED APPROACH PILOT PROGRAM (SC-IAP PROGRAM)

Introduction

41. Recognizing the unique window of opportunity that comes with rapid urbanization, the SC-IAP seeks to promote the creation and implementation of comprehensive sustainability planning and management initiatives. It will primarily do so by supporting local strategic planning processes and implementation efforts in selected cities and countries. To the maximum extent possible, local challenges addressed by this work – designed to promote improved livability and environmental conditions – will be linked to global challenges, such as climate change, biodiversity, water resources, chemicals and waste, land degradation, and so on.

42. There is already a considerable amount of support for sustainable cities around the world. What sets the IAP program apart from other initiatives is its novel approach to support planning and implementation efforts:

- *An emphasis on comprehensive, evidence-based planning:* The IAP program presumes that a thoughtful, evidence-based planning process is fundamental to urban sustainability, driving strategic decision-making and investments that will result in greater economic and resource efficiency, improved quality of life and enhanced environmental performance. In many ways, the program emphasizes the value that investments in institutional processes and capacity building can have in enabling the infrastructure investments that are most often associated with the delivery of a sustainable city.
- *Comprehensive suite of support services:* Multi-city sustainability initiatives typically include some shared resources that are made available to all program participants. The IAP program follows a similar path, but diverges from traditional approaches in terms of the type and wide diversity of services, tools and information to be made available and their overall orientation. Beyond the functional support provided by the services, the program will also emphasize a set of sustainability planning ideals, promoting broad topical coverage, engagement that reaches a wide set of stakeholders and the formal integration of these ideas into local policy and institutional arrangements. For all of these reasons, the SC-IAP will be far more than the sum of its individual parts, serving as a catalyst for many important changes in the urban sustainability field.
- *“Network” approach:* The policy control powers assigned to cities can be significant, but they are not all-powerful. Instead, cities are part of a complex web of stakeholders, and one of the planning challenges all cities face is how to identify and foster relationships that can deliver important elements of a local sustainability plan. The SC-IAP places a premium on the development or nurturing of these relationships, and the reflection of this stakeholder environment in the design and implementation of a local sustainability strategy. These stakeholders may be local or national, but they can also be global in focus, and across the SC-IAP

cities will be actively encouraged to participate in these initiatives. Such participation will allow IAP cities to both draw on the expertise of others, and share the insights they are gaining through the IAP program. A wide range of city-based networks and other agencies have been involved in the design of the program and will continue to be leveraged for support during the program roll-out.

- *Contribution to global discourse and financial leverage:* The SC-IAP will play an important role in advancing the cause of urban sustainability in the current global policy discourse. The creation of a Global Platform will help position cities as major hubs for global environmental and development benefits, and increase opportunities for financial leverage to support the sustainability and resilience agendas for cities. During COP21 in Paris, a number of new urban climate initiatives were launched, which can be woven into the fabric of the IAP program. Furthermore, inclusion of urban sustainability in the Sustainable Development Goals (SDGs) presents a timely opportunity for advancing the integrated approach, including potential indicators for monitoring and reporting. Finally, the IAP will build bridges to other initiatives focused on other aspects of urban sustainability, such as the Cities Biodiversity initiative at ICLEI, and different clean air and clean water initiatives that have been launched on several continents.

43. The program is organized around two major priorities: (i) to help participating cities promote an integrated approach through actual investment of their priority; and (ii) to create a global platform for knowledge sharing among cities, primarily focusing on participating cities, but others as well. This framework will ensure that participating cities can harness state of the art thinking/methods of integrated urban planning, and at the same time share their experiences globally through networks of mayors and city experts. This knowledge sharing platform is therefore a unique feature of the program with huge potential of scaling-up of transformation.

Global Programming

44. During the period covered by this report, the World Bank has continued to engage with a diversity of actors in the urban sustainability sector, including city networks and technology providers as part of the Global Platform for Sustainable Cities (GPSC). As a result, a more formal institutional arrangement is now positioning three key entities – WRI, ICLEI and C40 – as major partners for the GPSC to promote peer-to-peer learning and networking in the areas of sustainability planning, tools and indicators, and financial sustainability.

45. The longer-term vision of the GPSC is to create a platform to store cutting-edge knowledge and advocate good practices for sustainable urban development, and to give cities a single entry point to the network of city peers developed by the GPSC, to assist potential requesters of GEF grants (and other sources of financing eventually linked to the platform) in the preparation of their sustainability programs. GPSC aims to provide a global convening space for dialogue and a ‘clearing house mechanism’ on issues, resources and expert needs that will help position cities as major hubs for global environmental and development benefits, including

opportunities for financial leverage to advance the sustainability and resilience agendas for cities.

46. Building on the initial overall programmatic vision across all participating cities, the GPSC will ultimately provide full-fledged services for advancing the sustainable cities agenda globally, including the following:

- Access to methodologies, case studies and advice during implementation on specific technical issues on sustainable urban development
- Networking and city-to-city learning with ‘mentor’ city(ies) with direct relevant experience to the individual city program
- Access to a network of GPSC cities implementing similar programs, including periodic workshops, training events and conferences
- A database and “library” of knowledge on sustainable urban development continuously built through the following actions:
 - Develop, update and deepen methodologies and toolkits on key dimensions of sustainable urban development
 - Build capacity building tools from the workshop, conferences and training courses developed in key areas of sustainable urban development
 - Expand access and connection and curate knowledge and methodologies from other relevant sources
 - Integrate lessons of experience from the implementation of individual city programs
 - Integrate documentation prepared as part of the networking and city-to-city activities between participating cities and ‘mentor’ cities
 - Identify and document best practices in cities (through the city networks) in areas of sustainable urban development for the participating cities.

47. Under this vision, cities interested in participating in the program and accessing GEF support under the IAP Cities program would first access the platform to receive the following services and support:

- Access to the knowledge continuously accumulated by the GPSC on sustainable urban development – this would include tools, training materials, knowledge products and lessons of implementation from cities that have implemented investment and policy programs under the auspices of the GPSC
- Advice on the preparation of GEF city proposals, beginning with a strong focus on integrated sustainable city planning
- Access to practical lessons of experience from earlier cities supported by the GPSC in the implementation of sustainable sectoral programs embedded in an integrated sustainable plan for the city

- Identification of cities with relevant experience in the specific areas of interest of the proponent city, and initial exchanges for city-to-city advice in the preparation of the proponent city proposal to GEF funds (or other sources of financing linked to the GPSC)
- Access to global knowledge by various networks and institutions in areas related to urban sustainability and sectors of interest to the proponent city
- Invitation to periodic workshops and training sessions organized by the GPSC in the areas of interest of the proponent city.

48. To further strengthen the GPSC, the GEF has approved a medium-sized project on Urban Networking, which will complement and extend the reach of the Sustainable Cities IAP. The MSP will strengthen engagement by C40, ICLEI and the World Resources Institute as a GPSC Resource Team. This will enable the platform to leverage existing urban networks and technology providers for advancing the integrated urban planning through connecting cities via peer-to-peer interaction, organizing learning events and knowledge management.

Outreach and Stakeholder Engagement

49. The World Bank and the European Space Agency co-hosted the second Working Group Meeting of the Global Platform for Sustainable Cities (GPSC) on September 26- 28, 2016 in Frascati, Italy. Over 45 participants from cities, partner agencies, and experts from think-tanks participated and discussed the support GPSC can provide on utilizing geospatial data and implementing the Urban Sustainability Framework.

50. The GPSC also organized with the World Bank's Municipal Finance and Creditworthiness Academy, a four-day hands-on learning program for city leaders covering the fundamentals of creditworthiness and municipal finance. Participants used a self-assessment tool to identify challenges and develop a customized preliminary Action Plan. The Academy took place December 5-8, 2016 in Washington, D.C., and was co-hosted by the City Creditworthiness Initiative and the Global Platform for Sustainable Cities. Topics covered included revenue management; expenditure control and asset maintenance; capital investment planning; debt management; the use of special purpose vehicles to "ring fence" specific revenues; scoping of options for financing; and developing the enabling environment for private sector involvement.

Looking Ahead

51. Key upcoming events and stakeholder engagement sessions include: the Malaysia Child Project Launch event in conjunction with Melaka Sustainable Cities Conference on May 2-3, 2017; The China Child Project Launch event in conjunction with Global Low-carbon Cities Forum in September 2017; and the 2nd GPSC Global Conference in India in mid-October 2017.

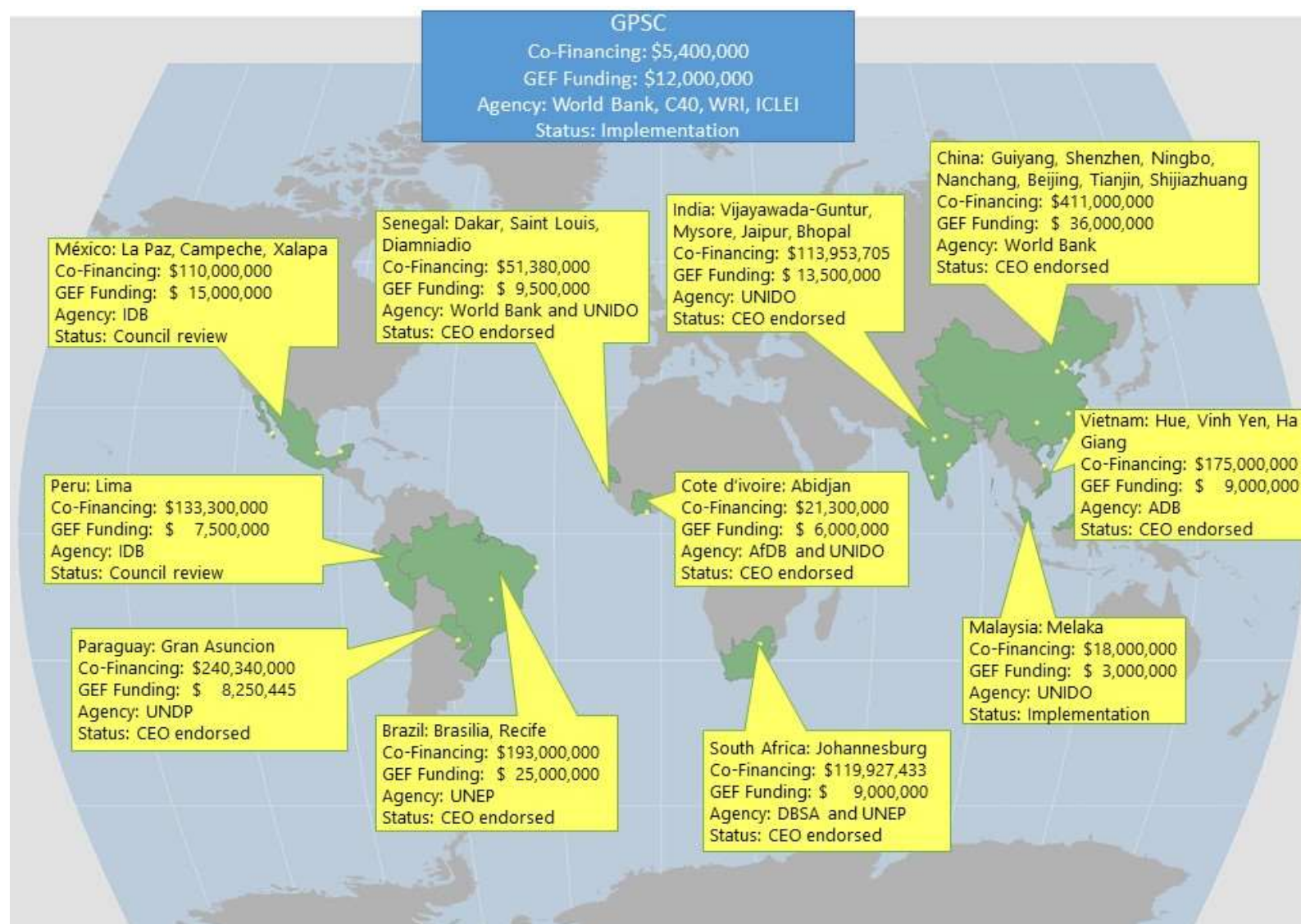


Fig 3. Countries with child projects under the Sustainable Cities IAP program, including target cities and financing.

Country Programming

52. Of the 11 countries designing projects under the IAP program (see Fig. 3), 8 have been CEO endorsed and some of them have started implementation. At time of preparing this report, child projects from South Africa, Peru and Mexico were under the Council notification period. Below is a brief summary of all 11 country child projects submitted under the program.

Brazil (Cities: Recife and Brasilia)

PROJECT TITLE: Promoting Sustainable Cities in Brazil through Integrated Urban Planning and Innovative Technologies Investment
GEF AGENCY: UNEP
GEF GRANT: US\$ 25 million
CO-FINANCING: US\$ 195.65 million
STATUS: CEO Endorsed

Context: The Ministry of Science, Technology, Innovation and Communications will use this GEF project to demonstrate how innovative urban technologies integrated with land use can lead to sustainable urban development. Through supporting the cities to set up innovative GIS systems, the project will enable Brazilian cities to better plan and manage their land use. A suite of green technologies will be demonstrated in two pilot cities. In Recife (Fig. 4), the project will test the efficacy of filtering gardens for improving the quality of the water in the Capibaribe River, the financial viability and the technology for a solar boats system to cross the river and also how to apply an innovative citizen's long-term vision to the cities' formal master plan and annual operational plans. In Brasilia, the project will test phytoremediation for soil remediation around the Estrutural dumpsite area, and will also support innovative ecosystem-based adaptation interventions in their design and granting methods in key watersheds.

Objective: Promoting sustainability in Brazilian cities through integrated urban planning and innovative technologies.

Components: The project is based on three components: (i) Integrated Planning Pilots; (ii) Integrated Investment Pilots; and (iii) Knowledge platform (+250 cities/users) with a focus on IT tools, indicators, content management, social media and capacity building.

Stakeholder engagement: Major stakeholders include the Ministry of Science, Innovation, Technology and Communications; the Secretariat of Environment and Planning of both Brasilia and Recife; ARIES (the Recife Agency for Innovation and Strategy); Porto digital; CGEE (Center for Strategic Studies); and the Sustainable Cities Program.

Global environmental benefits: The project is expected to have a direct emission reduction of almost 3,275 kilotons of CO₂e (ktCO₂e).

Innovativeness, sustainability and scaling-up potential: The project will improve the baseline conditions for targeted communities to the severity of anticipated climate change effects by decreasing energy and water insecurity. Direct benefits for local communities from ecosystem-based adaptation in the Paranoá and Descoberto basins will include improved natural capital and ecosystem services that underpin livelihoods such as agriculture and water production. Additionally, the GEF-financed project is expected to support evidence-based climate change policies and institutional arrangement, help the implementation of best practices to improve water quality and quantity, avoid land degradation and create ecological corridors, increasing availability of natural habitat for plant and animal species that depend on these ecosystems.

Fig. 4. Framework for integrated urban sustainability in the city of Recife, Brazil



Côte d'Ivoire (City: Abidjan)

PROJECT TITLE:	Abidjan integrated sustainable urban planning and management
GEF AGENCIES:	AfDB and UNIDO
GEF GRANT:	US\$ 6 million
CO-FINANCING:	US\$ 33.1 million
STATUS:	CEO Endorsed

Context: The urbanization process in Abidjan is uncontrolled and mostly informal. Within the older central Abidjan communes, uncontrolled growth is driven by subdivision of individual properties and by illegal settlements. Due to rising rent/land prices, land owners subdivide their plots and, as a result, spontaneous densification takes place. This ad hoc, uncontrolled densification strains road and utility infrastructure and the public facilities provided for the local communities. It also degrades the overall living quality of the urban environment resulting in, for instance, waste accumulation and increased flood risks. A 2013 World Bank study ranked Abidjan the fifth most vulnerable city in the world when measuring the flood risk potential (annual average losses) as a percentage of the city's gross domestic product (GDP). For the Greater Abidjan Region, a master plan – the “Schéma Directeur de Grand Abidjan 2030 – was developed with JICA support and approved by the Ivorian government in March 2016. The master plan addresses several issues facing Abidjan and is the starting point for the city's engagement in the Sustainable Cities IAP program. This GEF project under the IAP program aims to address the root causes of environmental degradation, and increase the adaptive capacity of individuals, communities, institutions, businesses and systems within a city to the adverse effects of climate change.

Objective: To enhance local capacity for assessment and responding to environmental degradation through the application of integrated sustainable urban planning and management methods, while encouraging the uptake of innovative lower carbon technologies to reduce GHG emissions and improve air quality.

Components: The child project will be delivered through the following four components: (i) Improving urban planning and management; (ii) Assessing and improving air quality; (iii) Sustainable urban infrastructure and tools; and (iv) Knowledge management, monitoring and evaluation activities.

Stakeholder engagement: Project partners are affiliated with several Ivorian institutions, including the Ministry of Environment and Sustainable Development, Ivorian Antipollution Center, Ministry of Transport, Ministry of Economic Infrastructure, Road Management Agency, Projet de Renaissance des Infrastructures de Côte d'Ivoire, the Autonomous District of Abidjan and Félix Houphouët-Boigny University. Two private companies have also joined the project and will host the clean production technology pilot projects, to be headed by UNIDO.

Global environmental benefits: Estimated 0.9 million metric tons of CO₂e (180,800 tons per year) and POP reduction of 0.5 g-TEQ over the life of the project.

Innovativeness, sustainability and scaling up potential: Côte d'Ivoire is already a beacon for economic growth in West Africa (8.4% growth rate in 2015 according to the World Bank). Abidjan, its largest city, is well positioned to serve as an example of a model sustainable city in the region. If Côte d'Ivoire is able to carry out concrete actions that

promote sustainable urban development and reduce the negative environmental impacts of industrial activity while still sustaining current economic growth trends, these experiences will surely have a spillover effect to other major cities in the region. The lessons that will be learned through the Sustainable Cities project in Côte d'Ivoire can be shared with other cities and countries (for example, through the GEF Sustainable Cities platform). The project aims at setting an example for sustainable and compact urban development by implementing the SDUGA2030 master plan in detailed urban plans.

China (Guiyang, Shenzhen, Ningbo, Nanchang, Beijing, Tianjin, Shijiazhuang)

PROJECT TITLE: Sustainable Cities IAP China Project
GEF AGENCIES: World Bank
GEF GRANT: US\$ 36 million
CO-FINANCING: US\$ 411 million
STATUS: CEO Endorsed

Context: China's recent urban population growth is unprecedented in size – 200 million people joined the urban population between 2000 and 2010, taking the total number of urbanites to 750 million by 2014. Urban population growth, however, has lagged behind the country's economic growth and physical expansion of its cities. Barriers to migration mean the urban population, at just 57%, is relatively low compared to other countries when they were at a similar level of per capita GDP. Urbanization has relied on rural to urban land conversion and land financing, which together with speculative real estate investments, has resulted in a sprawling, fragmented urban footprint, which is increasingly difficult and costly to serve with transport and utility services. Standards-driven urban planning has created a uniform urban fabric characterized by large, single-purpose, enclosed super blocks (of 400 meters or more), which make walking and biking difficult. Urban design has encouraged car-centered cities, which necessitate car use. Municipal governments have oversupplied and subsidized industrial land to attract industry and have built low-cost rental housing in remote locations resulting in land degradation and an increasing disconnect between housing and jobs. Low-wage migrants, excluded from subsidized housing, live in industrial dormitories or subdivided quarters in the rural-urban fringe, shanty towns or city basements. This is all having an increasingly negative impact on cities' long-term economic prospects, the global and local environment, public health, land, biodiversity, and natural resource use. It is also creating a growing social disconnect between residents, their communities, and job opportunities. The project directly tackles the problems brought by car-dependent urban sprawl in China. It will help to green China's ambitious urban transit infrastructure, which is estimated to reach 6000km of urban rail and 4000 metro stations by 2020, by integrating transit infrastructure with urban development. The project framework is anchored at multiple scales as follows:

1. At the national level, developing a diagnostic tool for Chinese cities to assess their level of TOD development and prescribe suitable interventions.

2. At the city level, supporting seven IAP cities in creating urban forms and space that reduce the need for private vehicles, and increase transport and land use efficiencies.
3. At the sub-district, corridor or station level, developing policy and guidelines to improve multimodal connectivity and land value capture.

Objective: The project is designed to support the incorporation of transit-oriented development (TOD) principles into seven Chinese cities' policies and into future urban and transit plans.

Components: The project includes two main components:

1. national platform and toolkit for TOD, which will develop a diagnostic tool which can be used by cities to assess or evaluate their level of TOD and prescribe possible interventions to set the city towards a trajectory for enhanced TOD; aggregate the outputs of the city level activities and compile indicators for monitoring, evaluation and benchmarking across cities; provide a comprehensive toolkit with multiple modules to help cities conduct diagnosis of readiness for TOD, develop contextualized TOD strategies, improve zoning and urban design in selected areas, and evaluate the impacts of policy and investment interventions associated with TOD; and collect and disseminate international best practices on various aspects of TOD and develop technical training modules and knowledge sharing activities for cities.
2. City Level TOD technical assistance and pilot, which will ensure that TOD strategy is reflected in city master plans, sector plans, zoning regulations and urban design schemes. This component would specifically support the seven cities in developing strategies and plans to better integrate land use and transport planning, create urban forms and space that reduce the need for private motorized vehicles, and increase transport and land use efficiencies. In each city, this component will consist of technical assistance, pilot demonstrations, and capacity building activities. For technical assistance, one common sub-component will be a TOD strategy for the city's central built-up area. Then depending on their focus and priorities, cities could develop a selection of enabling policy and institutional arrangements, conceptual land use plans, urban regeneration schemes, streetscape and urban design guidelines, parking strategies, non-motorized transport plans, and sustainable financing mechanisms following TOD principles. Pilot projects will be conducted at sub-district, corridor or station/transit hub level to implement lessons learned from the technical assistance activities. The capacity building component will support partnerships for cities at the local, national, and global levels, through knowledge management, training courses, peer-to-peer learning and global coordination.

Stakeholder Engagement: The engagement national level is through a Project Leading Group (PLG) to be chaired by the Ministry of Housing and Urban-Rural Development. PLGs in each of the seven cities will include senior officials from relevant government bureaus and agencies, including Finance, Development and Reform Commission, Housing and Urban Rural Development, City Planning, Environment, and Transport. PLGs will provide high level facilitation to ensure inter-agency collaboration and coordination which is critical to the success of the project and the implementation of the TOD concept.

Global environmental benefits: The project is estimated to generate 632 million tons of indirect CO₂e in emission reduction.

Innovativeness, sustainability and scaling-up potential: The overall sustainability will be assured through the integrated urban and transport planning endorsed by central and municipal governments to develop more sustainable approaches to urban development. At the national level, the City TOD platform will be owned and maintained by relevant departments under the Ministry of Housing and Urban-Rural Development, to inform adoption of the national TOD guidelines across cities and assist peer-to-peer learning of good practices. At the city level, the selection of project sub-components is in alliance with each city's own development priorities as reflected in the city master plans, five year plans and medium-term capital investment plans. Such a demand-driven project design approach ensured full support and ownership from city leaders, which is a key determinant of sustainability beyond the implementation period of this project.

India (Cities: Jaipur, Bhopal, Mysore and Vijayawada-Guntur)

PROJECT TITLE:	Sustainable Cities Integrated Approach Pilot in India
GEF AGENCY:	UNIDO
GEF GRANT:	US\$ 13.5 million
CO-FINANCING:	US\$ 113.9 million
STATUS:	CEO Endorsed

Context: The India project will focus on integration of sustainability strategies into urban planning and management to create a favorable environment for investments in infrastructure and service delivery. The Sustainable Cities' strategies development methodology will combine all relevant international guidelines, standards and methodologies for urban projects. Furthermore, it will support the implementation of India's national urban development programs like The Swachh Bharat Mission (Clean India Mission), The Smart Cities Mission, Atal Mission for Rejuvenation, and Urban Transformation and Solar Cities Program. The co-financing for the country child project is contributed by municipal corporations of the pilot cities, Indian Renewable Energy Development Agency, UNIDO and the private sector.

Objective: The project will demonstrate integrating sustainability strategies into urban planning and management, at national, state and city levels.

Components: The major components of the India child project include (i) Sustainable urban planning and management; (ii) Pilot projects/technology demonstration; (iii) Partnerships, investments and knowledge platform; and (iv) Monitoring and evaluation.

Stakeholder engagement: The project has engaged the Ministry of Urban Development; Ministry of Environment, Forest and Climate Change; Municipal Corporations of Jaipur, Bhopal, Mysore, Vijayawada, Guntur; State Governments of Rajasthan, Madhya Pradesh, Karnataka and Andhra Pradesh; Schools of Planning and Architecture (SPA); private sector; financing institutions; international organizations; and industries. Partnership and financing workshops have played a key role in engaging government agencies, urban local bodies and private sector, as well as organizations such as UN-Habitat, ICLEI, World Bank, Private Financing Advisory Network, USAID and Global Infrastructure Basel.

Global environmental benefits: Estimated 0.76 million metric tons of direct and 4.96 million metric tons of indirect CO₂e mitigated. It is expected to reduce GHG emissions and precursors (incl. black carbon) and emissions of air pollutants (PM, NO_x, SO₂, CO, etc.), and increase resilience of cities (e.g. from urban flooding, urban heat island effects).

Innovativeness, sustainability and scaling-up potential: Innovativeness of the project will be demonstrated through a clear methodology template – SCS-DM and clear tools for selecting best-suited intervention projects, which will most fit objectives of the GEF-6 SC IAP Child Project India. The project is also unique because it brings together three visions for city-wide development – the livable city concept, the sustainable city concept and the smart city concept. By combining these models, the project creates a more holistic approach to city planning and future development, thus strengthening the outcomes of the project and their usability.

Malaysia (City: Melaka)

PROJECT TITLE:	Sustainable city development in Malaysia
GEF AGENCY:	UNIDO
GEF GRANT:	US\$ 3 million
CO-FINANCING:	US\$ 20.23 million
STATUS:	CEO Endorsed

Context: Cities in Malaysia are faced with numerous challenges that threaten the ability of these urban areas to become viable pillars of sustainable development. The rapid increase in GHG emissions in cities has been further aggravated by: rapid urbanization and industrialization (7% per annum); relatively high carbon intensity dependence on fossil fuels and coal; and poor public transportation system and high demand of mobility that caused a rapid increase of cars compared to population growth. A major factor is the low density development in urban areas, resulting in urban sprawl with negative effects as reflected in increased urban pollution and environmental degradation through

depletion of resources (air, water and soil); traffic congestion and excessive use of motor vehicles; increased urban poor, inequality, social fragmentation; inadequate affordable housing and over-burdened public amenities; declining health condition and well-being; loss of open space, green areas, forests and valuable farmlands; lower public safety and increased crime; and low energy-efficient and renewable energy applications in buildings. These challenges call for an integrated and coordinated response at the local, state and national levels in order to ensure sustainable city development. Further delay in adopting an integrated approach poses a number of threats to sustainable urban development and cities continue to face development problems that are directly linked to socio-economic problems and environmental degradation with increased GHG emissions. In consultation with national stakeholders, Melaka has been selected to be the demonstration city for the project as it is a front-runner in Malaysia that is actively involved in embracing the concept of 'Green City'. The state government has announced an ambitious plan to become the first state in Malaysia to adopt green technology and be a green 'city-state' by 2020.

Objective: The government of Malaysia has established two main objectives for its child project under the IAP program: (i) to promote an integrated approach to urban policy-making and management guided by an evidence-based, multi-dimensional and broadly inclusive planning process; and (ii) to build awareness and institutional capacity, and promote investment in mitigation technologies through demonstration.

Components: Two major components will deliver the objectives: (i) Integrate climate consideration into urban planning and management, strengthen the national urban policy framework to promote sustainable and resilient cities model, improve planning and increase knowledge and partnerships; and 2) Demonstrate distributed and integrated urban energy system.

Stakeholder engagement: The Malaysia child project has engaged stakeholders from multiple agencies including the Malaysian Industry-Government Group for High Technology, Ministry of Urban Wellbeing – Housing and Local Government, Department of Town and Country Planning, Melaka City, international organizations, academic institutions, and civil society organizations.

Global environmental benefits: Estimated 0.8 million metric tons CO₂e of direct and 3.5-5.4 million metric tons CO₂e of indirect emissions (bottom-up) mitigated.

Innovativeness, sustainability and scaling-up potential: Current urban planning practices in Malaysia tend to be sector-focused with limited public engagement. One of the main innovative aspects of the project is the promotion of a holistic approach in urban development planning that is evidence-based, multi-dimensional and broadly inclusive and sustainable. This will be done through institutional capacity building, awareness raising and engagement with the public. Also, the demonstration project is a first of its kind in Malaysia as it demonstrates and tests individual technologies, as well as their integration into and validation in a smart grid system. This project will also provide an

important step in supporting macro-goals for GHG emission reductions by demonstrating the potential for savings from smart-grid implementation and facilitating the diffusion of this technology throughout the country. It will lead to savings via (i) altering consumer behavior and building properties that lead to energy savings; and (ii) allowing for the inclusion of renewable energy and electric vehicles in the smart grid, which will further stabilize the grid and reduce peak loads.

Mexico (La Paz, Campeche, Xalapa)

PROJECT TITLE: Implementation of Projects Prioritized by the Sustainable and Emerging Cities Program in Three Mexican Cities
GEF AGENCIES: IADB
GEF GRANT: US\$ 15 million
CO-FINANCING: US\$ 110 million
STATUS: Under Council Notification

Context: Mexico is the 12th producer of emissions by energy consumption globally. According to the National Inventory of GHG 1990-2010 (INEGI), the country's total emissions in 2010 were 748 million of CO₂ equivalent tons, up 19% from 2001. In this scenario, the Mexican Government estimates that by 2020 this amount will increase by 28% and reach 1 billion tons CO₂ equivalent. The rapid urbanization of the country has exacerbated this situation. During recent years, the population in cities of more than 100,000 inhabitants has increased substantially. In 1990, 47.9 million people were living in urban areas and in 2010 this number rose to 88 million. By 2015, 79% of the total population (94 million inhabitants) resided in cities. This tendency towards urbanization is expected to continue for years to come. The proposed project under the SC-IAP is part of a broader Sustainable and Emerging Cities program by the government, with a framework that is anchored at multiple scales as follows:

1. At the national level, enhancing understanding of the implications of climate change on urban development as well as the multiple benefits associated with integrated urban planning.
2. At the city level, demonstrating climate-smart investment in clean energy, waste management and water/sanitation sectors.
3. At the global level, actively participating in GPSC to promote Mexican cities' engagement in global policy discourses.

Objective: The project is designed to materialize the investment priorities identified by IDB's Sustainable and Emerging Cities Program in three Mexican cities. The objective of the project is to enhance the mitigation (Xalapa and La Paz) and adaptation (Campeche) capacities, through the preparation and implementation of ESC prioritized projects that will reduce GHG emissions in the clean energy and solid waste management for Xalapa and La Paz, and provide a sustainable and integrated sanitation sector planning framework for Campeche.

Components: The project framework includes three components focused on city level interventions (sustainable urban waste management through an innovative biodigester plant in Xalapa, self-supply PV power plants in public buildings in La Paz, and integrated planning for flood risks reduction, sanitation and restoration of urban coastal areas in Campeche). A fourth component focuses on improving the technical capacities of Mexican local governments and stakeholders to upscale integrated approaches to climate mitigation and urban resilience.

Stakeholder Engagement: The project has engaged stakeholders at multiple levels: national, state and city municipality. National stakeholders include Secretary of the Environment and Natural Resources (SEMARNAT); CONAGUA, which is the administrative, normative, technical consultative and decentralized agency of SEMARNAT; the Secretary of Finance and Public Credit (SHCP), responsible for regulating and supervising the federal government economic policies for the financial, fiscal, expenditure, income, and public debt sectors; the National Bank of Public Works and Services (BANOBRA); the Secretary of Agricultural, Territorial and Urban Development; and the Secretary of Energy. Local authorities and institutions of the municipalities of Xalapa, La Paz, and Campeche will play a lead role in city level implementation.

Global environment benefit: Direct GHG emissions avoided is estimated at 32,179 tons CO₂e and indirect at 424,877 tons CO₂e. The project will generate 46,000 MW of renewable energy during the lifetime.

Innovativeness, Sustainability and Scaling-up Potential: Innovativeness is reflected in the emphasis on technologies and practices introduced in the cities, such as technologies associated with methane capture, energy and compost production, the use of affordable and manageable renewable generation with high potential to increase energy savings for Mexican public buildings, and integrated system for management of water quality, wastewater, storm water. The institutional framework for implementation in each of the cities is anchored within the local municipalities, which will ensure long-term sustainability of the outcomes. The three cities (Xalapa, Campeche and La Paz) are strategically located in the northern, central and southern region of Mexico; this national coverage will facilitate replicability.

Paraguay (City: Asuncion)

PROJECT TITLE:	Asunción Green City of the Americas - Pathways to Sustainability
GEF AGENCY:	UNDP
GEF GRANT:	US\$ 8.25 million
CO-FINANCING:	US\$ 240.34 million
STATUS:	CEO Endorsed

Context: The project will place Asuncion and its metropolitan area on a pathway toward a sustainable and resilient city through addressing the outstanding urban problems, notably transport, solid waste disposal and management of green areas. The project will

implement a framework that attends to these issues in a systematic and integrated manner, thus providing a critical step forward to improve the city's sustainability.

Objective: To improve the quality of life in the Asuncion Metropolitan Area (AMA) and deliver multiple benefits through the integration of transport and solid waste management and green infrastructure into a framework for a sustainable and resilient city.

Components: The project has been organized into five components as outcomes: (i) Enabling framework for a green sustainable city for enhancing integrated urban planning of the AMA; (ii) Sustainable mobility and transport in the AMA for reducing GHG emissions from urban transport; (iii) Improved chemicals and waste management system for reducing emissions of UPOPs, GHGs and toxic chemicals; (iv) Enhancing and improving Protected Area management; and (v) Dissemination of Lessons-learned, monitoring and evaluation.

Stakeholder engagement: Public institutions involved so far include the Secretariat of the Environment; the Ministry of Public Works and Communications; the National Secretariat for Emergencies; the Secretariat of Strategic Planning; and the Municipality of Asuncion. Consensus was achieved between these key institutions on project components, products and activities as ratified in a high level meeting held in June 2016; others are expected to join the project team upon project launch set in November at the latest. CSOs are also an important part of project implementation, and are expected to take part in project implementation through several of the project's work spaces provided for within the Project Board, the project's technical committee and other work spaces convened by the municipalities of Asuncion and its Metropolitan Area.

Global environmental benefits: Estimates include: (i) 1,227,442 metric tons of CO₂e emissions mitigated and sequestered through transport-oriented development, UPOP emissions reduced green infrastructure and solid waste management policy uptake; (ii) 13.2 gTEQ through an integrated waste and chemical management system; and (iii) increase in 1% of global populations of five species found seasonally at site: Buff-breasted Sandpiper; American Golden Plover; Lesser Yellowlegs; White-rumped Sandpiper; and Pectoral Sandpiper.

Innovativeness, sustainability and scaling-up potential: By strengthening and updating the existing policy and regulatory framework and building the capacities of the institutions, the project will generate a much more cohesive and well-funded governance framework that will be better prepared to efficiently and effectively promote transport-oriented development, manage solid wastes and chemicals, and conserve globally significant biodiversity. Outcomes 2-4 will implement coordinated actions covering these sectors to demonstrate in practice the opportunities of integration and coordination thus delivering solutions to global environment problems in a cost-effective way. The proposed on the ground actions (e.g. reduce fossil fuel consumption, facilitate access to information, reducing traffic congestion, increase

mobility and connectivity under Outcome 2; waste collection, separation and recycling, and improvement of livelihoods of a marginalized population sector under Outcome 3; and green infrastructure development, and protected area management and funding for conservation of biodiversity under Outcome 4 will serve to demonstrate ways to reduce the AMA's ecological footprint and that can be mainstreamed into medium- and long-term public policies. By demonstrating that these proposals offer practical solutions to environmental and social problems, it is expected that the national and municipal governments will incorporate these strategies in their day-to-day management.

Peru (Lima)

PROJECT TITLE: National Platform for Sustainable Cities and Climate Change
GEF AGENCIES: IDB
GEF GRANT: US\$ 7.5 million
CO-FINANCING: US\$ 133.3 million
STATUS: Under Council Notification

Context: The Lima Metropolitan Area (LMA) is facing unprecedented challenges. Urban expansion and historical migration has determined the city's shape. The lack of metropolitan planning and institutional capacity at the national and local levels to house and provide public services for the incoming population have increased urban inequality. In the last five years, the city's population has been growing at a rate of 1.6% annually. The absence of policies regarding urban development and land use regulation has resulted in a very low-density city. Due to its geographic situation, LMA also has high vulnerability to extreme weather related events. According to Peru's National Geological and Mineral Institute, "El Niño" phenomenon and the consequences of climate change can potentially have an impact on at least 30% of LMA. Furthermore, 60% of all houses in LMA are seismically vulnerable. An estimated 200,000 buildings could potentially collapse in the case of a strong earthquake, and more than 89,000 inhabitants are in high risk of displacement in the case of a tsunami. The proposed project under the SC-IAP 8 is intended to help the LMA tackle these challenges in an integrated manner, and focuses on:

1. Enhancing integrated urban planning and management through development of GHG inventory and mitigation measures, urban and vulnerability and risk assessment, urban growth assessment, and climate change coastal adaptation master plan.
2. Demonstrating urban water resource management, low-carbon mobility and accessibility, and urban ecosystem improvement.
3. Creating partnerships for sustainable cities at the local, national and global levels through knowledge sharing and capacity building.

Objective: The project is designed to establish and operate a Sustainable Cities and Climate Change National Platform in Peru, starting with the Lima Metropolitan area.

Components: The project is comprised of four main components: (i) Enhancing integrated sustainable urban planning and management (ii) Hydric resources availability strategic assessments in LMA; (iii) Monitoring and analyzing local and globally relevant biodiversity performance frameworks for improved ecosystems; and (iv) Catalyzing investments for urban accessibility in Lima. Two additional components will focus on: (v) Enhancing partnerships for sustainable cities at local, national and global levels (through knowledge management, capacity building and global coordination), and (vi) Monitoring and evaluation.

Stakeholder Engagement: The project design process involved a wide range of stakeholders who will play a key role toward advancing the sustainable cities agenda. They include the Ate and San Borja Municipalities, National Water Authority, the Ministry of Transportation and Communications, the Train Authority (AATE), the Channel commission, PEPENAR and the newly formed Basin Council for Lurín, Chillón y Rímac rivers, amongst others. In addition, the project will engage with other institutions such as the French Agency of Development (AFD), World Bank, the Development Bank for Latin America (CAF), Fundación Transitemos, and Lima Cómo Vamos among others. Coordination with the NAMAs processes will also be critical, in particular with the transportation NAMA (lead by the GIZ) and the housing NAMA (led by Ministry of Housing and IADB).

Global environment benefit: Lifetime direct GHG emissions avoided is estimated at 51,100 tons of CO₂e and indirect at 1,753,559 tons of CO₂e. Landscape area directly covered by the project is estimated at 321 ha and indirectly covered at 118,738 ha.

Innovativeness, Sustainability and Scaling-up Potential: A key innovation for the project is to concentrate the planning, tools and other project activities under a National Platform that will be open to everyone. This will enhance processes that can guide other urban areas in the country to address environmental and urban climate change considerations in an organized and methodical manner. In addition, the Ministry of Environment of Peru is incorporating the Sustainable Cities and Climate Change National Platform into a strategic public policy, strengthening land use planning and territorial approach that is already in place. This will guarantee that the process can be replicated, as their financing will be part of the Ministry's core actions.

Senegal (Cities: Dakar, Diamniadio and Saint Louis)

PROJECT TITLE:	Sustainable Cities Management Initiative
GEF AGENCIES:	World Bank and UNIDO
GEF GRANT:	US\$ 9.5 million
CO-FINANCING:	US\$ 51.78 million
STATUS:	CEO Endorsed

Context: The Government of Senegal has put in place a holistic approach – the Plan Senegal Emergent (PSE) – to foster sustainable development. The PSE constitutes the national reference for economic and social policy in the medium and long term. Through the IAP program, the government is seeking to complement initiatives already taken by the PSE, with GEF investments in Diamniadio and Saint Louis designed to complement Dakar’s overall urban planning. The Diamniadio Industrial Park is one of the most ambitious infrastructure projects yet in Senegal and is an integral part of the Plan Senegal Emergent whose main target is to double economic growth by 2020. With industrial zones increasingly becoming part of cities, it is paramount that these industrial zones are sustainable and green as part of the sustainable cities principles, including promoting energy and resource efficiency in industry and industrial waste management. This calls for an integrated and sustainable planning of industrial parks in the context of sustainable cities.

Objective: To improve the planning and implementation capacity of sustainable city management practices, including climate resilience, in selected urban areas. The project will specifically integrate climate risks into urban planning and management in Dakar, Saint Louis and Diamniadio, and demonstrate low-carbon technologies in industrial processing in the region.

Components: There are two key components: The first is complementary to the World Bank Stormwater Management and Climate Change Adaptation Project (PROGEP), which includes (i) strengthening the national urban policy framework to promote cities’ sustainability, including climate resilience; (ii) mainstreaming of integrated sustainability and resilience planning tools, as well as improvement of planning and management capacities; (iii) small-scale investments in two pilot cities as a demonstration of the local and global environmental benefits anticipated from the application of sustainable cities’ practices and tools; and (iv) knowledge sharing and partnership development on sustainable cities and climate resilience at multiple levels. The second component will support clean industrial production and emissions reduction, as well as hazardous waste management and low carbon energy technologies through the following activities: (i) development of an approach for efficient natural resources use and cleaner production for industries located in Diamniadio; (ii) pilot methods for the reduction of dioxin, furan emissions and industrial hazardous waste; and (iii) low carbon energy technologies.

Stakeholder engagement: Key stakeholders include the Ministry of Environment and Sustainable Development; Department of Urban Planning and Architecture; Municipal Development Agency; Agence d’Aménagement et de Promotion des Sites Industriels; and Bureau de Mise à Niveau.

Global environmental benefits: Estimated 26,953 metric tons of CO₂e direct and 107,812-720,000 metric tons of CO₂e indirect; 1 micro-gram-TEQ of UPOPs per year.

Innovativeness, sustainability and scaling-up potential: The project is innovative in that it targets the integration of sustainability requirements in Senegal’s urban policy and

practices, as well as various environmental considerations, into the country's industrialization trajectory. Component 1 is aiming to promote integrated planning and investments related to urban sustainability that result in environmental, social and economic benefits at the local and global scale. Component 2 stems from the implementation of a two-pronged approach aimed at greening existing industries, upgrading them to meet environmental and energy efficiency standards and creating new green industries on resource efficiency and sustainable production. Furthermore, it is planned to set up the eco-industrial platform of Diamniadio under an integrated urban planning approach with the new urban pole of Diamniadio, as well as to address the planning challenges of future sustainable industrial parks and their integration into the city space. This aims to use the full potential of industrial symbiosis (common water, energy and material resources and treatment systems; energy and material recovery; waste valorisation; use of renewable energy and sustainable material substitutes; material and by-product reuse and recycling; etc.); and integration of energy access at early stages of city and industrial platform plan development in Diamniadio.

South Africa (City: Johannesburg)

PROJECT TITLE: Building a Resilient and Resource-Efficient Johannesburg: Increased Access to Urban Services and Improved Quality of Life
 GEF AGENCIES: DBSA and UNEP
 GEF GRANT: US\$ 9 million
 CO-FINANCING: US\$ 124.4 million
 STATUS: Under Council Notification

Context: Johannesburg was selected as the pilot city since it is considered the country's economic hub, producing 17% of the country's GDP (City of Johannesburg, 2014), and consumes large amounts of resources. The city is committed toward environmental sustainability in its long-term development strategy, the Growth and Development Strategy, 2040 (GDS 2040) developed in 2011. In parallel, the city also defined what it calls "Corridors of Freedom" (CoF) which is a "spatial transformation intervention" aiming to contribute to a socially and economically cohesive South Africa. The CoF combined with the GDS 2040 serves as the framework of the city's long-term vision. Through the IAP program, Johannesburg will benefit from strategic (policy), technical support and training for the establishment of sustainable city precincts and social housing, and the establishment of sustainable biofuel options. The outcomes will contribute to developing urban resilience to climate change, particularly for the more vulnerable sectors of the population.

Objective: To improve Johannesburg's capacity to adapt to climate change, as well as contribute toward GHG mitigation.

Components: The project has three key components: (i) demonstrate integration in the city's physical form, focusing on low-energy zones already identified in GDS 2040; this also includes some precincts in the CoF area to promote healthy lifestyles; (ii) combines

three priorities for sustainability: organic waste management and waste to energy, composting for food security and clean fuels for public transport; and (iii) develop an indicator framework to support evidence-base decision making and planning.

Stakeholder engagement: Major stakeholders at the municipal level include the City of Johannesburg (represented by all relevant departments); Gauteng Department of Infrastructure Development; Gauteng Department of Agriculture & Rural Development; Gauteng City Region Observatory; city liaison farmers' managers; city parks and zoos; University of Johannesburg; and the Johannesburg Social Housing Company. Other stakeholders at the national level include the South African Cities Network, the Social Housing Regulatory Authority, National Association of Social Housing Organization, the Council for Scientific and Industrial Research, and the African Farmers Association of South Africa. Private sector actors include major retail stores (Spar, Pick n Pay, Woolworths) and service providers such as Pickitup Johannesburg Ltd (municipal waste management).

Global environmental benefits: Estimated 3,291,577 metric tons of CO₂e of direct GHG emission reductions, and 1,113,658 metric tons of CO₂e of indirect/consequential GHG emission reductions.

Innovativeness, sustainability and scaling-up potential: Innovations are employed with sustainability in mind and to enable adoption and scaling-up of strategies. The project strategy will test concepts, approaches and technologies in Johannesburg, including an approach to city planning that requires modeling and environmental target setting for development in eco-districts. If this is successful, the targets will be codified for adoption throughout the Corridors of Freedom. Innovations related to social housing, management of solid waste and urban farming approaches will also be included in the cities' strategy for future programs. Through evidence- based planning, the project will advance incremental ways to support the city with decision-making. The incremental actions will be absorbed as the new normal working practice, and the successful planning tools and approaches will be scaled-up to other cities in South Africa, further increasing the potential impact of the project.

Vietnam (Cities: Hue, Ha Giang, Vinh Yen)

PROJECT TITLE:	Integrated Approaches for Sustainable Cities in Vietnam
GEF AGENCY:	ADB
GEF GRANT:	US\$ 9 million
CO-FINANCING:	US \$148.4 million
STATUS:	CEO Endorsed

Context: The Vietnam child project represents the first attempt to tackle urban development challenges in the country's secondary cities. It will demonstrate how to use small grants to achieve local economic and global environmental benefits and increase climate resilience in the urban setting. The Sustainable Cities IAP program will

support urban and global environmental improvement and climate resilience, including preparation of Green City Action Plans (GCAPs) in three IAP cities. At the national level, it will support national scaling-up of sustainable, integrated, climate-resilient urban development through helping the central government prepare a national framework that will prioritize, provide incentives and develop capacity for green, climate-resilient city investments across Vietnam. The project will also develop sustainable cities indicators to guide an integrated planning framework and linked financial mechanisms. The GEF grant under the SC-IAP is also linked to a separate US\$4.5 million SCCF-project that is also under design, and leverage an additional US\$180 million through an ADB-supported baseline project Green Cities I Program. Alignment of these investments will foster a holistic, integrated approach to urban development and the mainstreaming of environmental and global environmental concerns into GCAPs and individual investments, including the crucial need for addressing climate resilience.

Objective: To integrate climate mitigation, resilience and environmental protection into urban planning in secondary cities in Vietnam.

Components: The project will be delivered through three components as follows: (i) Mainstream green planning/design approaches and resilience into three pilot cities' master plans; (ii) Demonstrate two innovative technologies for climate resilient and low carbon development in Vietnamese cities; and (iii) Build an enabling environment to scale up integrated urban planning approaches.

Stakeholder engagement: At the national level, the Ministry of Natural Resources and Environment has a key role in climate change, environmental protection and land-use planning. Key stakeholders for the project include local authorities and mass unions (Fatherland Front, Women's Union and Youth Union) in the target cities, professional organizations and umbrella organization of INGOs. Others to be engaged include the Vietnam Union of Science & Technology Associations, Network of Vietnamese NGOs and Climate Change, People's Participation Working Group, Gret Vietnam, Oxfam Quebec, CARITAS Vietnam, Institute of Research and Consultancy on Development, Center for Development of Community Initiative and Environment, Research Centre for Family Health and Community, Action for the City, Center for Social Research and Development, Center for Rural Development Consultation and Service Transfer and the Red River Center.

Global environmental benefits: Estimated total GHG emissions avoided (direct and indirect) over the project lifetime is 11.3 million metric tons of CO₂e. The lifetime direct is 1.71 million metric tons of CO₂e, while the indirect will be in the range of 6,850,000-9,590,000 metric tons of CO₂e.

Innovativeness, sustainability and scaling-up potential: The project will demonstrate a holistic, participative, science-based approach to climate-proofing investments, while previous efforts in the country have been fragmented and sector focused. The demonstration funds could be used to support physical investments, the use of

software, or innovative finance or risk management mechanisms such as climate insurance at the city level. A second innovative aspect is the focus on secondary cities. Most internationally supported initiatives in the past have focused either at the national level or in the major cities. This is the first initiative to support sustainable urban development in secondary cities. The support will be replicated in six other secondary cities.

TAKING DEFORESTATION OUT OF COMMODITY SUPPLY CHAINS (COMMODITIES IAP PROGRAM)

Introduction

53. The Commodities IAP program is advancing an integrated approach to tackling the underlying root causes of deforestation from agriculture commodities, specifically *beef*, *oil palm* and *soy* that together account for nearly 70% of deforestation globally. To significantly reduce or take deforestation out of these commodity supply chains, production has to come from areas that do not contribute to require further clearance of natural forests.

54. The program's theory of change builds on the notion that if the right lands (agriculture lands, degraded lands, etc.) are available and accessible for production, and if forested areas are considered 'no-go', agriculture expansion and growth can be achieved without contributing to deforestation. Good production practices are contingent on the ability of producers to enhance their capacity to develop and implement better management practices and improve yields. At the same time, financial flows and economic incentives, coupled with market awareness and demand for reduced-deforestation supply to enable and signal producers, can similarly play a key role in driving agriculture expansion to the desired locations.

Fig. 5. Supply Chain Approach for the Commodities IAP program



55. The adoption of better practices and sustainability principles can contribute to forest maintenance through protection of water sources, identification and set aside of high conservation value and high carbon stock areas, and other important activities that contribute to sustaining environmental services. By advancing an integrated 'supply chain' approach for beef, oil palm and soy, the Commodities IAP program builds momentum for sustainability and

supports a global drive for deforestation-free commodities to become standard industry practice.

56. The overall IAP program is designed through the supply chain lens for each of the three commodities, and in close consultation with four countries associated with their production: Brazil and Paraguay for soy and beef; and Indonesia and Liberia for oil palm (Fig 5). Table 1 below summarizes how the program is being designed, including entry points in the commodity supply chains, and involvement by the participating GEF Agencies.

Table 1. Design framework and supply chain entry points for the Commodities IAP program

Supply Chain	Palm Oil	Soy	Beef
Support to Production Lead: UNDP; with CI and WWF	Indonesia and Liberia as participating countries; engagement with Round tables, private sector, production systems and smallholders; Tropical Forest Alliance and Consumer Goods Forum	Brazil as the participating country; engagement with market/private sector actors, and production systems	Paraguay as participating country; engagement with landscape-level production systems, private sector, production and traceability systems
Enabling transactions Lead: WB/IFC; with UNEP and WWF	Engagement with private sector; financial institutions, financial market benchmarking; risk analysis and methodologies	Engagement with private sector; financial institutions, financial market benchmarking; risk analysis and methodologies	Engagement with private sector; financial institutions, financial market benchmarking; risk analysis and methodologies
Generating Responsible Demand Lead: WWF; with UNDP	Engagement with private sector, associations and Round tables, Consumer Goods Forum, policymakers, end consumers and media	Engagement with soy traders and Round tables, Consumer Goods Forum	Engagement with private sector and Round tables, Consumer Goods Forum, policymakers
Adaptive Management and Learning Lead: UNDP	Cross-cutting focus on knowledge management, coordination and global level engagement to advance practices for taking deforestation out of commodity supply chains.		

Outreach and Stakeholder Engagement

57. For much of 2016, extensive outreach was undertaken by the participating GEF Agencies to engage multiple actors within the sustainable forestry sector and along the entire supply chain. These included platform or collaboration initiatives, private sector companies,

development organizations, financial institutions, academia and think tanks. The child projects built on the strong baseline of work by a multi-agency consortium of UNDP (lead for the IAP program), WWF, IFC/World Bank, UNEP FI and CI, and in an integrated, coordinated and synergistic fashion in order to foster sustainability and achieve transformational impact. The design activities were also conducted in close consultation with four countries associated with the commodities: Brazil for soy; Paraguay for beef; and Indonesia and Liberia for oil palm.

58. As part of the outreach activities, the IAP program was represented at the Tropical Forest Alliance (TFA) 2020 General Assembly in March in Brasilia, Brazil. Immediately following this meeting, an informal kick-off meeting was held for the Brazil Child project at the UNDP office in Brasilia. Participants included representatives from GEFSEC, UNDP, WWF US and Brazil, Sociedade Rural Brasileira, The Brazilian Foundation for Sustainable Development (FBDS), and CI US, Brazil and Europe. The IAP program implementing agencies and GEFSEC also participated in the TFA Africa Palm Oil Initiative workshop in Geneva in February, and the Innovation Forum on how business can tackle deforestation in Washington, DC in March. In April, the CEO of the Roundtable on Sustainable Palm Oil visited the GEF offices for consultation on sustainable commodities. These outreach and stakeholder engagement activities have been invaluable for positioning the overall IAP program within the wider global context of tackling commodity-driven deforestation.

Looking Ahead

59. As part of their project start up activities, all of the implementing agencies involved in the IAP are now busy hiring staff, developing workplans, meeting with key stakeholders, planning country launches, etc. UNDP as lead agency is planning outreach activities to continue engagement with major supply chain actors, as well as in the context of global policy forums. The IAP program will be represented at a UNDP organized Deforestation-free Agriculture workshop to be held in Peru in August, and a Green Commodities workshop to be held in Indonesia in October. GEF will also attend the European RSPO meeting followed by an IUCN Palm Oil Taskforce kick off meeting in the UK in June.

60. A formal IAP program implementation launch event is now in the early stages of organization by UNDP together with Agencies and the GEF Secretariat. The Global Launch of the Commodities IAP tentatively scheduled to take place in New York in September 2017, just prior to the UN General Assembly.

Supply Chain Programming

61. During the period covered by the report, child projects on generating responsible demand (WWF), support to production (UNDP), adaptive management and learning (UNDP), taking deforestation out of the soy supply chain in Brazil (CI), and enabling financial transactions (World Bank/IFC/UNEP FI) have all been technically cleared and endorsed by the GEF. Project start-up has begun and country specific activities for child projects and the overall program are now being planned.

62. The Commodities IAP Program overall is expected to generate substantial multiple global environmental benefits, including reduced deforestation from agricultural commodity production, biodiversity conservation and sustainable forest management. Estimated targets relative to those established for the GEF-6 replenishment are presented in the table 2 below.

Table 2. Global Environmental Benefit targets for the Commodities IAP program

GEF Replenishment Targets	IAP Indicative Targets	IAP Program Indicators for Monitoring
Improved management of landscapes and seascapes covering 300 million ha	23 million	<u>Indicator 1</u> : Area of commodity producing landscapes under integrated management to maintain globally significant biodiversity and forest ecosystem goods and services
120 million ha under sustainable land management	1 million	<u>Indicator 1</u> : Area under Good Agricultural Practices and SLM for sustainable production of oil palm, soy, and beef.
750 million tons of CO₂e mitigated (include both direct and indirect)	100 million	<u>Indicator 1</u> : Total lifetime direct CO ₂ e mitigated through avoided deforestation and uptake of sustainable agriculture practices <u>Indicator 2</u> : Total lifetime indirect CO ₂ e mitigated through avoided deforestation and uptake of sustainable agriculture practices

Support to Production

PROJECT TITLE: Support to Reduced Deforestation Commodity Production
 GEF AGENCY: UNDP
 GEF GRANT: US\$ 14.6 million
 CO-FINANCING: US\$ 164.7 million
 STATUS: CEO Endorsed

Context: Beef, soy and palm oil are the main agricultural commodities driving deforestation in tropical and equatorial forests today. To reduce the pace of deforestation, and to remove deforestation from commodity agriculture supply chains, production will need to come from areas that are not currently forested.

Objective: To leverage demand effectively, transactions and support to production to ensure successful implementation of the Commodities IAP program.

Key components: In order to achieve this objective, the project will be implemented under the following four components: (i) Dialogue, action planning, policies and

enforcement where the project will support the establishment and operations of national and sub-national commodity platforms as the means to ensure structured dialogue on sustainable production within the target countries; (ii) Farmer support systems based on principles of sustainable intensification offer an important path to increasing production while minimizing deforestation; (iii) Land-use plans and maps in targeted landscapes aimed at ensuring commodity production and expansion within appropriate areas, as well as the reduction and eventual elimination of deforestation associated with commodity expansion, beginning with HCV and HCS areas; and (iv) Knowledge management and M&E to ensure the project gathers and shares lessons systematically and effectively – with a special emphasis on developing and disseminating knowledge.

Global environmental benefits: The project is expected to improve land management on more than 200,000ha, promote integrated management of landscapes covering over 7,950,000ha and mitigate up to 65.6million metric tons of CO₂e GHG emissions.

Stakeholder engagement: Over 135 entities – including governmental bodies, private sector entities (including producers, buyers, traders, processors, consumer goods manufacturers and retailers), NGOs and civil society organizations, platforms and collaboration forums and development partners – have been or will be engaged in the project, notably through the organization and convening of national and sub-national (e.g. provincial and district-level) commodity platforms.

Innovativeness, sustainability and scaling-up potential: The project will contribute to changing the overall structure of the global market for palm oil and beef toward reduced deforestation products. Sustainability and continuation of activities after program implementation will come from innovative changes in business and market practices that lead to increased preferential sourcing of such products. The new market structure and business standard will help to keep both producers and buyers aligned with the new practices over the long term and will likely strengthen over time and be adopted by producers and buyers of other commodities with analogous supply chain structures.

Generating Responsible Demand

PROJECT TITLE:	Generating Responsible Demand for Reduced-Deforestation Commodities
GEF AGENCIES:	World Wildlife Fund, Inc., UNDP
GEF GRANT:	US\$ 8.7 million
CO-FINANCING:	US\$ 42.3 million
STATUS:	CEO Endorsed

Context: Beyond major threats and barriers for global forest and grassland conservation – especially in those areas impacted by deforestation for oil palm, soy and beef production – critical issues and gaps hinder further success. This projects seeks to address some of these gaps such as (i) limited demand for reduced deforestation

products; (ii) weak enabling environments or conflicting policies that inhibit capacity to meet demand for reduced deforestation commodities; (iii) lack of consumer awareness of the benefits of sustainably produced commodities; (iv) limited transparency tools and market intelligence that help actors understand where/how commodities are being produced, traded and consumed and make informed decisions. The **demand child project** will strengthen reduced deforestation supply chains for oil palm, soy and beef by focusing on all major demand actors – consumers, policy makers, companies, and investors.

Key components: The project will focus on demand aspects of the supply chain for oil palm, beef and soy, which will be achieved through the following components: (i) Mainstreaming demand for reduced deforestation commodities with major buyers and traders; (ii) Strengthening the enabling environment for reduced deforestation commodities in demand markets; (iii) Promoting reduced deforestation commodities in major markets; (iv) Advancing supply chain transparency, traceability & decision support tools; v) Monitoring and Evaluation.

Stakeholder engagement: Stakeholders to be engaged include soy, beef and oil palm supply chain companies globally and in producer countries and regions. These include commodity trader companies such as ADM, Amaggi, Bunge, Cargill, COFCO, and Louis Dreyfus Commodities; and buyers such as Yum!, McDonald's and Wilmar. Additional stakeholders include global bodies/platforms such as Consumer Goods Forum, Global Canopy Programme, Proforest, Stockholm Environment Institute and TFA.

Innovativeness, sustainability and scaling-up potential: The project's innovation is demonstrated in the intention to adapt global strategies and interventions to local contexts, for example, through the consumer campaign in Indonesia and the investor work in Southeast Asia. Other innovative interventions include supply chain mapping to the IAP production sites and the publishing of supply chain maps from origin to destination. Scaling-up will be promoted in the Demand Child Project by building innovative initiatives that can be expanded or replicated elsewhere. Through the corporate and government Learning & Exchange programs, for example, best practice and innovative approaches being taken by corporate and government leaders to remove deforestation from commodity supply chains can be applied by other Learning & Exchange participants in their own contexts.

Enabling Transactions - Market Shift to Deforestation Free Beef, Palm Oil and Soy

PROJECT TITLE:	Enabling Transactions - Market Shift to Deforestation Free Beef, Palm Oil and Soy
GEF AGENCY:	World Bank, UNEP
GEF GRANT:	US\$ \$6.4
CO-FINANCING:	US\$ 23 million
STATUS:	CEO Endorsed

Context: Private sector sustainable commodity sourcing efforts are linked predominantly to the adoption of multi-stakeholder, voluntary standards for palm oil, soy and beef respectively, but these mechanisms are still a long way from tipping the balance towards sustainable supply as a market qualifier rather than a market niche. On the finance side, banks have begun to organize into groupings, such as the Banking and Environment Initiative (BEI), with the aim of taking deforestation out of their lending portfolios. However, to date only large international banks (e.g. Rabobank, Barclays, Deutsche Bank, UBS, etc.) have signed on, with no regional or local banks in emerging markets yet participating with these initiatives. Financial products that reward producers and traders for adopting internationally recognized standards are also limited, and current fiscal incentives in the agriculture sector continue to attract private finance into commodity production practices that contribute to driving deforestation.

Key components: The key components that will be implemented include: i) Support to commercial transactions; ii) Support to Financial Markets & Institutions; and iii) Support to Public Sector - Incentives and co-financing for Transactions.

Stakeholder engagement: The project will be executed by IFC, UNEP FI, and WWF-US. Stakeholders to be engaged include Financial Institutions (FIs) and investors in the target countries. The project will also work with CSOs and NGOs and multiple private sector entities will be engaged in the identification of investment opportunities

Global environmental benefits: By reducing the financing flows to deforestation linked commodity production through the development of environmental and social risk management capabilities (within financial institutions and through the development of readily available tools to capture deforestation risk), the project will contribute to limiting the expansion of agriculture's forest footprint and associated implications on GHG emissions and biodiversity loss (Aichi Target 4). It will also support the harmonization of fiscal incentives in the agricultural sector in general, and the target commodities in particular, with efforts to reduce forest loss (Aichi Target 3). Finally, the project will increase the volume of investment mobilized and leveraged by GEF for low GHG development by generating a \$100 million of additional financing per year.

Innovativeness, sustainability and scaling-up potential: The innovation lies in directly enabling change in the overall structure of the market by reducing finance flows into commodity production driving deforestation, while supporting the development of adequate blended and commercial financial products to catalyze adoption of sustainable commodity production and trade. Additionally, it comes from working with financial regulators to identify and promote regulatory interventions that contribute to reducing pressures on forests. Sustainability will come from changes in business and market practices by financial institutions and financial regulators leading to increased capabilities in environmental and social risk management and track record in financing sustainable commodity production and trade; and the strengthening of

complementarity fiscal incentives governing the production of selected commodities in target countries with efforts to remove deforestation from supply chains.

Adaptive Management and Learning

PROJECT TITLE: Adaptive Management and Learning for the Commodities IAP
GEF AGENCY: UNDP
GEF GRANT: US\$ 4 million
CO-FINANCING: US\$ 5.3 million
STATUS: CEO Endorsed

Context: In addition to overall coordination of the program for ensuring coherence and consistency, this child project will help establish a global level knowledge platform to advance the supply chain approach for beef, soy and oil palm. This will include a Global Community of Practice to share best practices and promote learning, and a Global Research Impacts platform to develop a robust and policy-relevant evidence base on the effectiveness of different voluntary sustainability standards for deforestation-free commodities. This child project also anchors the overall IAP program results framework, which will ensure implementation within a wider global context for tackling commodity-driven deforestation.

Objective: To support overall implementation of the integrated supply chain approach to taking deforestation out of beef, oil palm and soy supply chains. The child project will be responsible for overall program coordination to ensure coherence and promote integration of the different child projects across all three commodity supply chains and four participating countries. The project will shift the baseline from the fragmented initiatives toward a more effectively coordinated partnership for the IAP Program, with clear links to other initiatives and existing platforms associated with tackling commodity-driven deforestation globally.

Key components: The key components that will be implemented include (i) Program Coordination Monitoring and Evaluation and Adaptive Management for logical sequencing and program-level monitoring; (ii) Global Impacts Platform to facilitate increased understanding of the impacts of voluntary sustainability standards (VSS) and VSS-like mechanisms to increase the effectiveness of these mechanisms for taking deforestation out of commodity supply chains; (iii) Knowledge management, partnerships and communications activities to maximize learning, foster synergies and promote scaling-up of actions to take deforestation out of commodity supply chains.

Stakeholder engagement: In order to maximize impact, key stakeholders to be engaged include the Tropical Forest Alliance, KLD (Norway's International Climate and Forest Initiative), U.K. Department for International Development, IDH – the Sustainable Trade Initiative, UN-REDD, Forest Trends (executing agency for the UNEP/GEF Supply Change project), Proforest, Rainforest Alliance, Oxfam, Fauna and Flora International, EcoAgriculture Partners, Global Canopy Program, Climate Advisers and the Carbon

Disclosure Project. For the Global Impacts Platform, executed by ISEAL Alliance, the project will engage researchers, standards organizations, companies, governments, decision-makers and others to ensure that results meet the needs of potential user groups and that the findings are disseminated and taken up by relevant stakeholders.

Innovativeness, sustainability and scaling-up potential: The AM&L project features various innovative elements, including the implementation of a partnership strategy for the program to manage global-level IAP partnerships effectively and to work in coordination with other key partners to maximize global environmental benefits. A Global Community of Practice will be set up to facilitate learning and exchange of knowledge among practitioners on effective interventions to address deforestation in supply chains and to build synergies for greater impact. The project will produce important knowledge products such as a study to examine the interrelationships among sustainable production, demand and transactions, which will enable the IAP Program's theory of change and impact to be assessed. Learnings will be disseminated in a myriad of ways such as through the inclusion of IAP content on the Guardian Sustainable Business hub. A Global Impacts Platform will be established, with a set of tools for navigating a large and diverse evidence base, a focus on translating science into decision-relevant insight and direct outreach to support this process. In addition, sustainability is reflected within the project in different ways such as an ongoing focus on partnership consolidation and creation of synergies that will ensure the foundations for continued action on these topics are established.

Country Activities

Brazil – Soy Supply Chain

PROJECT TITLE:	Taking Deforestation out of the Soy Supply Chain
GEF AGENCY:	UNDP
GEF GRANT:	US\$ \$6.6
CO-FINANCING:	US\$ 28 million
STATUS:	CEO Endorsed

Context: Following Council approval of the PFD, the Government of Brazil requested an explicit focus on the soy supply chain in the country, bringing together substantive aspects on Enabling Transactions, Responsible Demand and Support to Production into a single child project for Brazil, with UNDP as the implementing agency and Conservation International as executing partner. The proposed child project was designed on a baseline targeted on the 'Matopiba' region (abbreviation for the States of Maranhão, Tocantins, Piauí and Bahia), for which a proposal had been developed with the Brazilian government and approved by Grupo Técnico de Avaliação de Projetos (GTAP). The project will tackle threats that the advancing soy production frontier is posing in the region through a supply chain approach in line with the overall IAP program.

Key components: The key components that will be implemented include (i) Dialogue, policies and enforcement – to provide support for the mobilization and engagement of public and private partners in defining a vision for the development of the region and for implementation of existing environmental legislation; (ii) Farmer support systems and agri-inputs to help farmers to adopt sustainable management of their properties and sustainable agricultural practices; (iii) Land-use plans and maps in targeted landscapes to improve planning for expansion of production and conservation; (iv) Supply chain integration in order to increase awareness of the market (processing industries, retailers and consumers) and banking sector regarding sustainable production of soy and promotion mechanisms; and v) Adaptive management, learning.

Stakeholder engagement: The project will be executed by Conservation International – Brazil, the Sociedade Rural Brasileira (SRB) and the Fundação Brasileira de Desenvolvimento Sustentável (FBDS). The main stakeholders are soy farmers in the Matopiba region and their organizations, state and municipal governments in the region, traditional communities and smallholders, traders of agricultural commodities and other private sector representatives involved in the soy production chain, and representatives of agricultural extension services and CSOs.

Global environmental benefits: The project is expected to improve land management on more than 6 million ha, promote integrated management of landscapes covering over 500,000 ha and mitigate up to 1.1 million metric tons of CO₂e GHG emissions.

Innovativeness, sustainability and scaling-up potential: The innovative approach in Matopiba comes from linking the implementation of Brazil's Forest Code in targeted landscapes with a 'whole supply chain approach' for soy production. This integration of the different stages will ensure that the success of the Forest Code interventions leads to impact further along the supply chain. Furthermore, rather than being an isolated project, the coordination and alignment of the Brazil project activities with the broader IAP program (linking project-based production-related activities with activities in the production project, for example), is an innovative way to ensure real, long-lasting and large-scale impact on the sustainability of the soy supply chain.

Indonesia – Oil Palm Supply Chain

Context: Oil palm is one of the major drivers of deforestation in Indonesia. Clearing land for palm oil and other commercial plantations is linked to the burning of dry peatland, creating widespread and prolonged fires. Peat stores some of the highest quantities of carbon on Earth and also emits methane, resulting in up to 200 times greater emissions than regular fires of a similar extent on no-peat lands. The Government of Indonesia is taking major steps toward sustainable oil palm as part of an overall plan for greening the economy by protecting the environment from human-induced degradation and enhancing human resources through capacity building and the dissemination of science and technology. The government has also committed to reducing emissions 29% by 2030, and this aligns with Indonesia's Sustainable Consumption and Production

strategies (the 10-Year Framework on National Program on Sustainable Consumption and Production).

Entry Points for the IAP Program: In line with the supply chain approach, Indonesia's engagement in the IAP is anchored through the production child project, but includes activities for enabling financial transactions and generating responsible demand. The entry points include an explicit focus on three target landscapes in the major oil palm producing regions: Sintang (West Kalimantan), North Sumatra and Pelalawan (Riau), and a multi-scale approach engagement based on the following components: (i) dialogue, action planning, policies and enforcement; (ii) farmer support systems; (iii) land-use planning, mapping and conservation in targeted landscapes; (iv) promoting responsible demand and markets for oil palm; and (v) enabling financial transactions for smallholder intensification and rehabilitation.

Stakeholder engagement: At national level, the Indonesian National Palm Oil Platform (INPOP), launched in October 2014 by the government in co-operation with UNDP, is now the primary entry point for all actions related to the oil palm sector nationally. INPOP is already serving as basis for development of a National Action Plan to be completed in 2017. The Indonesian Sustainable Palm Oil (ISPO) certification system is mandatory for plantations and designed to cover all palm oil producer companies to produce sustainable palm oil. Led by Indonesia's Ministry of Agriculture, ISPO seeks to improve implementation of Indonesian laws and regulations related to sustainable palm oil by working with palm oil producers/mills to increase compliance with existing and plantation law. Six major palm oil companies (GAR, Asian Agri, Wilmar, Cargil/Hindoli, Musim Mas, and Astra Agro International) in Indonesia have committed to the 'Zero Deforestation Pledges.' Indonesian companies including brands, retailers and traders will also be engaged to facilitate reduced deforestation palm oil sourcing and sales within domestic markets, and Indonesian consumers will be engaged in making better purchasing decisions through campaigns and media events. In the provinces and districts, key stakeholders will include the government agencies, local authorities, NGOs, CSOs and companies operating locally. The project will engage up to 6,000 smallholder farmers as direct beneficiaries.

Global environmental benefits: Improved management of target landscapes covering 13.94 million ha, including at least 1 million ha of high conservation value (HCVF) and high carbon stock (HCS) forests; sustainable land management practices in commodity-producing areas covering 400,000 ha; and 40 million metric tons of CO₂e in reduced GHG emissions.

Innovation, sustainability and potential for scaling-up: The innovative approach of the IAP program as a whole comes from directly linking demand and production through the specific focus on commodities sourced from the targeted landscapes, complemented by measures to enhance investment in reduced-deforestation commodities, for a 'whole of supply chain' approach to supporting reduced deforestation practices. In Indonesia, the

program will support ongoing efforts by the government and all stakeholders to tip the palm oil supply chain toward practices that do not lead to deforestation. The new sustainable market structure and business standard will maintain producers and buyers aligned with the new practices over the long term and will likely strengthen over time.

Liberia – Oil Palm Supply Chain

Context: Liberia is a relative newcomer to the global palm oil industry. However, there is widespread global interest in production possibilities and large-scale plantation companies are looking at west and central Africa as a region ripe for oil palm development. Four major international oil palm companies – Sime Darby, Sinar Mas (known locally as Golden Veroleum or GVL), Equatorial Palm Oil Limited, and Socfin/Cavalla – have signed and ratified concession agreements with the Liberian government. The concession agreement with GVL granted the company a 65-year lease of 220,000 ha of land, to be selected from a gross concession area of 350,000 ha. In July 2009, the Government of Liberia also granted 63-year concessions to Sime Darby for a total of 220,000 ha northwest of Monrovia. Together, concession areas for these two companies alone total more than 500,000 ha and represent approximately US\$3.8 billion in investment. Their interest in the region could spur much-needed economic development, but it could also convert critically important forest areas to agricultural use, given that the concessions border several national parks and critical wilderness areas. There is also significant concern regarding the lack of government capacity to enforce legislation in the palm sector, particularly surrounding rural land tenure.

Entry point for the IAP program: Overall, sustainable development of the Liberian palm oil industry will need to encompass a holistic approach that enables economic development while maintaining forested areas, particularly those with important climate, cultural and biodiversity values. This approach will require a combination of: (i) effective policies and governance; (ii) renewed investment in extension services and research; (iii) improved market infrastructure and production efficiencies; (iv) safeguards that protect the rights of Indigenous Peoples and local communities; and (v) the development of a cadre of Liberian professionals to implement the necessary sustainability strategies and investments. These priorities will serve as entry points for the IAP program, which include an explicit focus on landscapes in four regions of the country targeted for oil palm development – Grand Cape Mount, Bomi, Gbarpolu and Bong, and a multi-scale approach engagement based on the following components: (i) dialogue, action planning, policies and enforcement; (ii) farmer support systems; (iii) land-use planning, mapping and conservation in targeted landscapes; and (iv) enabling financial transactions for smallholder intensification and rehabilitation.

Stakeholder engagement: At national level, key stakeholders include the Forest Development Authority, Ministry of Agriculture, and the Environmental Protection Agency. Among the companies, the Sime Darby Oil Palm Plantation Company will be a key partner for advancing sustainable practices and integration of high conservation

value and high carbon stock forests in oil palm production landscapes. The program is also engaging major partners, such as Conservation International, Proforest and IDH that have been working closely with the government agencies toward sustainable production of oil palm.

Global environmental benefits: Land-use plans and zoning will secure at least 75,000 ha of high conservation value and high carbon stock forests.

Innovation, sustainability and potential for scaling-up: The innovative approach of the IAP program as a whole comes from directly linking demand and production through the specific focus on commodities sourced from the targeted landscapes, complemented by measures to enhance investment in reduced-deforestation commodities, for a 'whole of supply chain' approach to supporting reduced deforestation practices. The program will support ongoing efforts by the government and all stakeholders to position Liberia for sustainable palm oil production with sound forest conservation policies and strategies. The policies and business standard will maintain producers and buyers aligned with the new practices over the long term and will likely strengthen over time.

Paraguay – Beef Supply Chain

Context: The cattle sector is the most important cause of deforestation in Latin America, and Paraguay represents the world's sixth largest beef exporter. Beef production is vital to the economy, playing an important role in Paraguay's high rates of GDP growth. The government is committed to further increasing beef production and the country's position in beef exports. Yet livestock production in Paraguay has been associated with substantial negative environmental impacts. The country has one of the highest deforestation rates in the world at 338,081 ha per year (2015), and the Chaco region is experiencing extremely high rates of conversion with approximately 306,021 ha cleared per year for beef production. This has led to high environmental degradation, which is exacerbated by the poor soils, low levels of precipitation, high winds and hot temperatures. Low levels of planning in terms of the use of water and land resources also significantly impacts environmental degradation.

Entry point for the IAP program: The Government of Paraguay is taking steps to promote sustainability in the beef sector as part of its national development priorities. Building on these efforts, engagement of Paraguay in the IAP program is based on the assumption that strengthening demand for sustainable, reduced-deforestation commodities can be achieved by advancing awareness, capacity and collective actions of corporations (e.g. buyers, processors, traders and retailers), and policy makers (e.g. local, federal, multilateral agencies), among other key actors. If these actors send strong demand signals calling for reduced deforestation practices on the ground, producers will begin shifting to responsible, reduced-deforestation commodity production. The IAP program will focus on increasing demand for sustainable beef production in the Chaco region through interventions in target landscapes – Central Boquerón, Northern Boquerón and Agua Dulce (Department of Alto Paraguay), and the following

components: (i) dialogue, action planning, policies and enforcement; (ii) farmer support systems; (iii) land-use planning and mapping; (iv) knowledge and awareness raising; (v) mainstreaming demand for reduced-deforestation commodities with major buyers and traders; and (vi) strengthening the enabling environment for reduced-deforestation commodities in demand markets.

Stakeholder engagement: Major stakeholders at national level include the Ministry of Livestock, Ministry of Trade and Industry and the Environment Secretary. The IAP program production will establish a Chaco Regional Platform and support strengthening of the National Platform on Soy and Beef, which will mobilize all key actors in the beef supply chain. This effort will be aligned with ongoing initiatives led by WWF through the USAID-funded 'Forest Conservation Agricultural Alliance' in the Chaco, and by the Dutch NGO, Solidaridad through the 'Sustainable Landscape Management in The Paraguayan Chaco.' Other major stakeholders include commodity buyers and traders, main livestock cooperatives in the Chaco, the Chambers of Commerce (Asociación Rural del Paraguay and Cámara Paraguaya de la Carne), SENACSA (the National Service for Animal Health and Quality), INDI (the Paraguayan Indigenous People Institute) and the Federation for the Self-Determination of Indigenous Peoples. The program will engage up to 3,500 farmers, including indigenous communities as direct beneficiaries.

Global environmental benefits: Up to 430,000 ha of high conservation value and high carbon stocks forest secured; 5 million metric tons of CO₂e lifetime direct and indirect emissions avoided.

Innovation, sustainability and potential for scaling-up: The innovative approach of the IAP program as a whole comes from directly linking demand and production through the specific focus on commodities sourced from the targeted landscapes, complemented by measures to enhance investment in reduced-deforestation commodities, for a 'whole of supply chain' approach to supporting reduced deforestation practices. As there are only a few traders that dominate almost the entire beef industry in Paraguay, progress in stimulating increased demand from them for sustainably produced beef will have a huge impact in the Chaco region. Furthermore, the establishment of the Chaco regional platform will enable continued dialogue and consensus among key stakeholders of the beef supply chain, including cooperatives and traders, which represent a key element of project sustainability. The development of a national interpretation of an international standard to incorporate sustainability criteria will also be an important achievement; it will ensure sustainable impact by strengthening the enabling environment to support sustainable production.