United Nations Environment Programme

Final Report	**Terminal Evaluation of the UNDA 7th Tranche funded UNEP project "Capacity Building in National Planning for Food Security" (UNEP PIMS ID 01582- IMIS Number 1574)**

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This evaluation would not have been possible without the strong support of UNEP partners and key stakeholders in each country. They include in Uganda World Agroforestry Centre (ICRAF); National Planning Authority (NPA); National Environmental Management Authority (NEMA); and the Wildlife Conservation Society (WCS). In India: the Green Indian States Trust (GIST) Advisory; Delhi University-Agricultural Economics and Business Economic Units; Punjab Agricultural University (PAU); the Indian Institute of Forestry Management, (IIFM); and Kheti Virasat Mission Trust. All demonstrated a high level of flexibility with the changing mission schedule and availed themselves for interviews with the consultant in person, or virtually on email and Skype.

Photographs on cover page:

Punjab State, India is Heavily Dependent on Irrigation Agriculture: Source: Punjab Agricultural University (PAU)

http://www.nexus-assessment.info/punjab-case

In Uganda, Rapid Population Growth and Environmental Degradation Impacts on Land Productivity and Ecosystems Health.

http://nape.or.ug/ugandas-surging-population-is-straining-resources/

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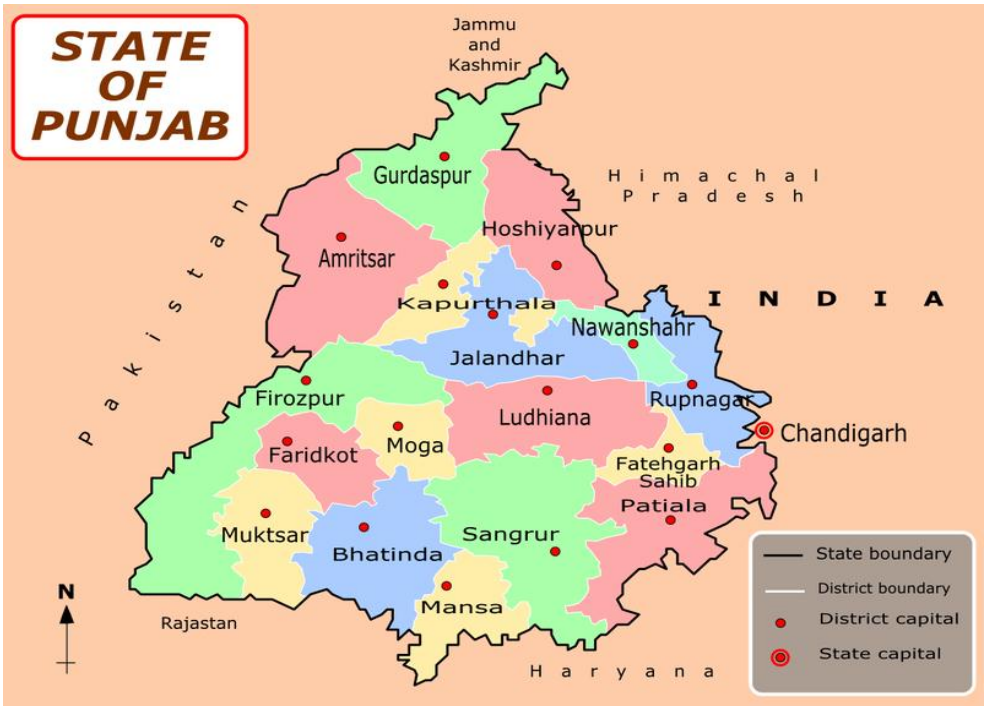
List of acronyms & abbreviations

Acronym/Abbreviation	Meaning
CFA	COMPREHENSIVE FRAMEWORK FOR ACTION
CGIAR	CONSULTATIVE GROUP FOR INTERNATIONAL AGRICULTURAL RESEARCH
CITMA	MINISTRY OF SCIENCE, TECHNOLOGY AND ENVIRONMENT
DAC	DEVELOPMENT ASSISTANCE COMMITTEE
DEPI	DIVISION OF ENVIRONMENTAL POLICY IMPLEMENTATION
DI	DIVERSIFICATION INDEX
EA	EXPECTED ACCOMPLISHMENT
EAG	EXPERT ADVISORY GROUP
EMA	ECOSYSTEMS MANAGEMENT APPROACH
EO	EVALUATION OFFICE (of UNEP)
ES	ECOSYSTEMS SERVICES
FAO	FOOD AND AGRICULTURAL ORGANIZATION
GEF	GLOBAL ENVIRONMENT FACILITY
GIST	GREEN INDIAN STATES TRUST
ICRAF	WORLD AGROFORESTRY CENTRE
IIFM	INDIAN INSTITUTE OF FOREST MANAGEMENT
MA	MILLENNIUM ECOSYSTEM ASSESSMENT
MDAs	MINISTRIES DEPARTMENTS AND AGENCIES
MTR	MID-TERM REVIEW
MTS	MEDIUM TERM STRATEGY
NAFORRI	NATIONAL FORESTRY RESEARCH INSITUTE
NEMA	NATIONAL ENVIRONMENT MANAGEMENT AUTHORITY
NGO	NON GOVERNMENTAL ORGANISATIONS
NPA	NATIONAL PLANNING AUTHORITY
OECD	ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT
PAU	PUNJAB AGRICULTURAL UNIVERSITY
PDS	PUBLIC DISTRIBUTION SYSTEM
PRODOC	PROJECT DOCUMENT
ROAP	REGIONAL OFFICE FOR ASIA AND THE PACIFIC
ROLAC	REGIONAL OFFICE FOR LATIN AMERICAN COUNTRIES

ROtI	REVIEW OF OUTCOMES TO IMPACTS APPROACH
SSC	SOUTH TO SOUTH COOPERATION
SSFA	SMALL SCALE FUNDING AGREEMENT
TE	TERMINAL EVALUATION
TOC	THEORY OF CHANGE
TOR	TERMS OF REFERENCE
UNDA	UNITED NATIONS DEVELOPMENT ACCOUNT
UNDAF	UNITED NATIONS DEVELOPMENT ASSISTANCE FRAMEWORK
UNDP	UNITED NATIONS DEVELOPMENT PROGRAMME
UNSG	UNITED NATIONS SECRETARY GENERAL
UNEP	UNITED NATIONS ENVIRONMENT PROGRAMME
WCS	WILDLIFE CONSERVATION SOCIETY

Figure 1: General Map of Punjab State, India



Source:https://en.wikipedia.org/wiki/Punjab,_India#/media/File:Punjab_district_map.png

Figure 2: General Map of Uganda Hoima District, and Western Uganda-formerly South Bunyoro District

Source:https://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0CAYQjB1qFQoTCMC6kLCvtccCFYfNFAodhl0E4w&url=http%3A%2F%2Fwww.snipview.com%2Fq%2FHoima_District&ei=cJTUVcDCKIebU4a7kZgO&psig=AFQjCNGtH_Ea8bZMP12N1GSQQposFIlA3w&ust=1440080905564476

Table 1: Project identification table

UNEP PIMS ID:	**01582**	IMIS number:	**1574**
Sub-programme:	SP3: Ecosystem Management	Expected Accomplishment(s):	EA 3b: Countries & regions have the capacity to utilise and apply ecosystem management tools
UNEP approval date:	09 February 2010	PoW Output(s):	2012-13 PoW # 321 2014/15 PoW #321
GEF project ID:	Not relevant	Project Type:	Not relevant
GEF OP #:	Not relevant	Focal Area(s):	Not relevant
GEF approval date:	Not relevant	GEF Strategic Priority/Objective:	Not relevant
Expected Start Date:	08 August 2011	Actual start date:	08 August 2011
Planned completion date:	07 August 2013	Actual completion date:	31 July 2014
Planned project budget at approval:	USD 710,000	Total expenditures reported [at the time of evaluation][1]:	USD 657,271
Planned Environment Fund (EF) allocation:	USD 0	Actual EF expenditures reported as of [date]:	USD 0
Planned Extra-budgetary financing (XBF):	USD 0	Actual XBF expenditures reported as of [date]:	USD 0
XBF secured:	USD 0	Leveraged financing:[2]	USD 0
GEF Allocation:	Not relevant	GEF grant expenditures reported as of [date]:	Not relevant
PDF GEF cost:	Not relevant	PDF co-financing:	Not relevant
Expected MSP/FSP co-financing:	Not relevant	Secured MSP/FSP co-financing:	Not relevant
First Disbursement:	USD 710,000	Date of financial closure:	06 October 2014 [3]
No. of revisions:	3 [4]	Date of last revision:	10 June 2014
Date of last Steering Committee	Not relevant	Not relevant	Not relevant

[1] The reported project expenditures to date do not include expenses related to this Terminal Evaluation.

[2] UNDA funds are part of regular budget financing in the UN Secretariat System. The Project spent Environment Funds for printing, designing and ordering some publications, as the UNDA funds only covered operational expenses of the publications under the approved budget document. The contribution of other funds XBF and EF can be considered to be zero.

[3] This period coincides with the time around which the final payment was made to a Project partner.

[4] The number of financial revisions to the Project was three: in year 2010, 2012 and 2014. However the number of revisions to the PRODOC was two: on 16th January 2013 and 10th June 2014 respectively.

Mtg			
Mid-term review/ evaluation (planned date):	Not required	Mid-term review/ evaluation (actual date):	Not required [5]
Terminal Evaluation (actual date):	November 2015		

Executive summary

Evaluation overview

i. The Terminal Evaluation of UNEP's "*Capacity building in national planning for food security*" project was undertaken to assess the project performance. It applied the following evaluation criteria: relevance, effectiveness, efficiency, and sustainability of results (outcomes and potential impacts). The scope of the evaluation covered national level partners and stakeholders in Punjab State, India and Uganda. Its focus was on determining the results of collaboration between UNEP and its key partner institutions, i.e. World Agroforestry Centre (ICRAF), Green Indian States Trust (GIST), Punjab Agricultural University (PAU), Indian Institute of Forest Management (IIFM) and the National Planning Authority (NPA) -Uganda.

ii. The purpose of the terminal evaluation was to: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and the main project partners. In addition the evaluation identifies lessons of operational relevance for future project formulation and implementation.[6]

iii. The terminal evaluation of the UNDA funded project was conducted under the overall responsibility and management of UNEP's Evaluation Office (EO), in consultation with the UNEP Division of Environmental and Policy Implementation (DEPI) and the Ecosystem Management Sub-Programme. A participatory approach was applied through close collaboration and communication with the UNEP EO and UNEP DEPI project team, in order to clarify any information requirements for a quality output and to foster ownership and utilization of the findings.

Evaluation methodology

iv. Mixed methods were applied for this terminal evaluation. They include (a) desk reviews of primary project documents and other secondary material (b) key informant interviews with project stakeholders and partners (c) an email based survey of Expert Advisory Group (EAG) members, which however was unable to achieve a critical mass and therefore substituted with semi-structured interviews and; (d) field visits to the project countries - India and Uganda. This approach allowed for triangulation of evaluative information[7] and data from various sources. It

[5] A Mid-Term Review was not a requirement for this project which was planned for a period of 2 years initially

[6] Evaluation TOR (annex 1)

[7] Evaluative information refers to the key evaluation questions as described in the Annex 1: TOR Section II.

enabled in-depth analysis and a holistic understanding about the project's actual and potential achievements, as measured against its planned objectives and expected results. In addition, the consultant reconstructed the original project logical framework table as expressed in the Project Document (PRODOC), presenting it in the form of a Theory of Change (ToC) diagram[8]. Reconstruction was based on the consultant's own understanding of the Project from initial document reviews, meetings with UNEP DEPI staff, field visits to target countries and interviews with key project partners and stakeholders.

Summary of the main evaluation findings

v. Overall, the Project was rated 'Moderately Satisfactory' (MS) with many of the findings falling under the rating of 'Moderately Satisfactory' (MS)[9].

A. Strategic relevance:

vi. The project was found to be highly relevant to UNEPs Medium Term Strategy (MTS) 2010-2013 - Ecosystem and Environmental Government focus area, specifically Expected Accomplishment (EA)3b that states: "Countries and regions have the capacity to utilize and apply ecosystem management tools"[10]. The Project also builds upon earlier projects implemented by UNEP. For instance, it built upon lessons and recommendations emerging from the Millennium Ecosystem Assessment (MA) report: "Ecosystems and Human Well-being: Policy Responses", that outlined implicating evidence of the existence of fundamental trade-offs between the need to increase food production and the need to sustain ecosystems in the long run to support food production. The Project is well aligned to the objectives of the Bali Strategic Plan, specifically on i) strengthening capacity of governments of developing countries as well as with countries in economic transition at all levels; ii) helping governments to implement goals set by the UN Governing Council/ Global Ministerial Environment Forum in parallel as UNEP's response to requests by governments for targeted capacity building within the organization's mandate; and iii) developing national research monitoring and assessment capacity, establishing infrastructure for scientific development and environmental management in order to ensure sustainability of capacity building efforts. In regard to strategic relevance, the project was rated as 'Highly Satisfactory' (HS).

B. Achievement of outputs:

vii. The UNDA 7 Project satisfactorily achieved most of its planned outputs in collaboration with UNEP, UNDA and UNDP India, EAG members and international non-governmental organizations (INGOs) such as ICRAF, GIST, IIFM and PAU. Achievement of outputs helped to: a) foster understanding and knowledge; and b) to build capacity. For instance, on fostering understanding and knowledge, project partners and stakeholders in India and Uganda were satisfied with the successful establishment of national Expert Advisory Groups (EAGs)

[8] See figure 3 below

[9] The UNEP evaluation office rates overall project as satisfactory. Details are provided in the Summary of the evaluation criteria and ratings –table, page 13 (and table 6, page 64).

[10] Evaluation TOR Figure 1: Project Summary

comprising of 30-50 members in each. This output fulfilled the design requirements on the first project activity: "*to build on national networks of experts and policy makers from ministries, departments and agencies, (MDAs), legislators, local academic institutions and NGOs to form national EAGs on planning for sustainable food production and ecosystem services*".

viii. Other project outputs such as pilot studies and training workshops on trade-off analysis between food production and ecosystem services (ESS) were achieved with relative success. This was a very important first step in supporting evidence-based decision making through Ecosystems Management Approach (EMA). In both countries (India and Uganda) the available data provided useful indications on which gaps need to be addressed to refine the estimates. These studies contributed to building of national capacities for data collection on ESS provisioning and regulating services in target countries. For example, the World Agroforestry Institute (ICRAF) helped to enhance national stakeholders' capacities to evaluate findings from analysis of ecosystem services (ESS) trade-offs in Uganda. ICRAF which focused on developing three food security scenarios, with food production policies on one side and actual practices on the other, examined the accuracy of alignment with Uganda's food policy objectives as well as non-coherence or disconnect impacting on national food security policies.

ix. However, According to stakeholders in Uganda and India, the Project missed an important opportunity to develop an effective outreach strategy for disseminating findings from pilot studies as planned. This limited the number of policy dialogues and outreach events on integration in both target countries (output indicators), reducing opportunities for information exchange and knowledge sharing. Given this situation, the overall rating on achievement of outputs was rated as 'Satisfactory' (S).

C. Effectiveness (attainment of project objectives and results):

x. The Project made good progress towards achieving its objectives and planned results in target countries, as expressed in the logical framework and re-constructed theory of change. The first project outcome was: 'increased understanding and knowledge on ESS, economic development and human wellbeing'. In India, pilot studies showing various trade-off scenarios between food production and ESS using EMA were well documented in a documentary film aimed at raising awareness of EAG members and other stakeholders on the issues. They were also shared using modalities for close collaboration such as the project website and intranet. However, it was not immediately clear to what extent or level planned results (project outcomes and impacts) were realized with key stakeholders in India through these activities and outputs, especially as project partners cited challenges with internal coordination due to inexperience working together, conflicting approaches and time series data gaps affecting the timeliness of outputs.

xi. In Uganda, the pilot studies conducted by ICRAF using modelling scenarios with future projections of an eco-system hot spot area: Hoima District in Western Uganda, were highly effective in achieving planned project results. This despite the challenging context of a late start and reduced time-frame and available budget, due to the withdrawal of Cuba after over one year of implementation. The findings from ICRAF's pilot studies in Hoima District were well timed, as they coincided with the end of the First National Development Plan Period, (2011-

2015). Lessons from the Project studies conducted by ICRAF are currently being incorporated into revisions of the Second National Development Plan (NDP 2), with ecological intensification focus and budget designed to feed into a continuing process and with early indications of potential national budgetary support. This finding indicates successful achievement of the second project outcome: 'strengthened national capacity to evaluate food production strategies and integration into national planning using EMA' with national stakeholders in Uganda.

xii. In India, however, beyond awareness raising, capacity building and development of trainings and other materials, it was difficult to influence national stakeholders (EAG members) to adopt and integrate pilot study findings into government policy. Project partners felt that contractually, this expected outcome of the project was over-ambitious within the planned timeframe. The reasons and challenges cited by partners were government bureaucracy, busy and unavailable government officials, high government staff turnover and the project's focus on state level officials rather than on district level stakeholders who are considered to be more knowledgeable about the conditions of farmers in Punjab State. Project partners therefore suggested that a second, follow up project with specific focus on public policy revision cascaded down to also include local level stakeholders was needed in order to achieve food policy impact using EMAs in that country.

xiii. Overall, there is evidence that the project has potential for achieving impact. This is evidenced by the momentum and general interest created on EMAs so far, the high level of cooperation and engagement by most key stakeholders especially in Uganda and the quick response by the Ugandan government on adopting and integrating lessons learned from pilot studies into key national policies and strategies. These findings confirmed the project's relevance and alignment to national food production and environment goals. The environmental and ESS challenges facing Punjab State in India and the current practice where food purchase by the government is already decentralized through the government's own procurement system: (i.e. the Public Distribution System [PDS]) confirms that many other states are now contributing to the food basket.

xiv. These factors when evaluated together resulted in a final rating of 'Moderately Satisfactory' (MS) concerning the project effectiveness[11].

D. Sustainability and replication:

xv. On sustainability, despite the progress made so far with project stakeholders in Uganda, it is highly doubtful that these benefits will be self-sustaining in the short-term without continued support by UNEP and its partners. Significant scaling up of financial and technical support for enhancing the project's design by incorporating historical time series data collection activities in India; enhancing resources within the UNEP project team for strengthening the project's oversight and coordination role with partners; and integration of a midterm review for

[11] EO: The overall MS rating for Effectiveness is based on 3 sub-criteria, out of these the achievement of direct outcomes was rated as Satisfactory and other two criteria for achievement of formal project objectives and likelihood of impacts as Moderately Satisfactory.

assessing the quality of service delivery and addressing service delivery gaps in a timely manner would have helped to sustain the project benefits and promoted replication to other ecological zones.

xvi. The momentum and interest created by the UNDA Project as evidenced in Uganda and India is, however, at risk of fading away in time and the efforts by UNEP to create this very relevant and valued project potentially lost. However, the goodwill demonstrated by the Ugandan government through their flexibility in adopting the recommendations from pilot studies so far into national food policies, complete with budget lines, indicates socio-political good will which is critical for future sustainability of results. Additional support by UNEP is required that is focused on building capacity at the national and local levels. Greater emphasis and focus should be directed towards improving the quality and quantity of data and institutional capacities to analyze trade-offs between food production and ESS in various geological zones, both for comparison and for accurate determination of the types of food security policy changes needed.

xvii. On socio-political sustainability, the goodwill demonstrated by the Ugandan government by adopting recommendations from pilot studies into national development plans complete with budget lines, is encouraging and indicative of potential for long- term sustainability with enhanced capacity. Similarly, the demand for more scientifically rigorous methods in India coupled with the government's current decentralization of food procurement through the Public Distribution System (PDS) will increase the demand for food security policies that are informed by the findings from trade-off analysis on food production using EMAs, in Punjab State and other food producing areas. However, the evidence seems to reveal unsustainability of financial resources for project activities, without continued future support by UNEP and its key funding partners through a follow-up project. With the large amount of work still needed to enhance the quality of pilot studies undertaken so far in each country and refocus the project approach with a view towards engaging local and national level actors more effectively there is no evidence so far of alternative resource commitments to sustain the project results. These factors resulted in a final rating of 'Moderately Unlikely' (MU) concerning the project sustainability.

Catalytic role and replication:

xviii. The Project has possibilities of replication as shown by the commitment of key partners and national stakeholders. For example, catalytic effects on behaviour change on the part of national stakeholders in India. They had little or no prior experience of collaborating together on UNEP funded projects focusing on identifying and measuring trade-offs between food production, ESS and Ecosystem Management. The catalytic effect of the project on behavior changes on the part of national stakeholders led to the incorporation of EMA approaches into national food security policy, and national development plans rather quickly. This was made possible by the project's timing which coincided with the end of the funding period for some national development plans. The project has potential to influence behavior change amongst other government ministries, such as the Ministry of Water Resources in Uganda that does not traditionally collect data on small rivers. This may change going forward based on the

recommendations emerging from pilot studies and enhanced capacities of national stakeholders to evaluate these findings.

E. Efficiency:

xix. Withdrawal of Cuba affected the project efficiency, as it followed with extensive work carried out by UNEP initially in that country during the first year. This resulted in a project amendment extending the project period by over 6 months. Most partners felt that the project was rather rushed making it difficult to close data gaps and to conduct accurate trade-off analysis as planned. Several requests for time extensions at no cost were submitted by partners, related to the project activities. This seemed to indicate that to some extent, the project underestimated the amount of time it would take to complete activities within acceptable quality standards. The evaluation consultant rates the project efficiency as 'Moderately Satisfactory'.

F. Factors affecting project performance:

xx. The short timeframe for the project and its challenges with building capacity and getting buy-in from national level stakeholders in the case of India were not adequately considered at design stage. In addition, the selection of Cuba with its closed system of government and its eventual withdrawal from the project seems to indicate that the project was ill prepared for the challenges and potential risks associated with its involvement[12]. The project also underestimated its level of preparedness to effectively address government bureaucracy in India. This eventually impacted negatively on the project's achievements there. Nevertheless, most of the factors affecting the project performance were rated as 'Satisfactory' (S) or 'Moderately Satisfactory' (MS). The Monitoring and Evaluation design and implementation were rated both as 'Moderately Unsatisfactory'.

[12] EO: These views concerning the preparedness of the project are not shared by the project team: "*UNEP had very good entry points in CUBA and a request from the country. It was not a lack of preparation; it was an unfortunate political decision. The government stakeholders organized meetings with over 150 research and government institutions, this shows the country was very interested in this project Government stakeholders were approached from the beginning of the design. UNEP Regional Office for Latin America (ROLAC) and UNDP Cuba were also fully on board with the project.*"

xxi. The table below is a summary of evaluation ratings on the project based on evaluation criteria as described above. Each criterion is rated on a six-point scale as follows: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS) Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability is rated from Highly Likely (HL) down to Highly Unlikely (HU).

xxii. The table also presents any deviations in terms of the rating given by the independent evaluation consultant and the UNEP Evaluation Office.

Summary of the evaluation criteria and ratings

Criterion	Ref.	Rating	EO rating
A. Strategic relevance	**3.1**	**HS**	**S**[13]
B. Achievement of outputs	**3.2**	**S**	**S**
C. Effectiveness: Attainment of objectives and planned results	**3.3**	**MS**	**MS**
1. Achievement of direct outcomes as defined in the reconstructed TOC	3.3.1	S	S
2. Likelihood of impact using ROtI approach	3.3.2	MS	MS
3. Achievement of formal project objectives as presented in the Project Document.	3.3.3	MS	MS
D. Sustainability and replication	**3.4**	**MU**	**U**[14]
1. Socio-political sustainability	3.4.1	L	L
2. Financial resources	3.4.2	U	U
3. Institutional framework	3.4.3	ML	ML
4. Environmental sustainability	3.4.4	ML	ML
5. Catalytic role and replication	3.4.5	MS	MS
E. Efficiency	**3.5**	**MS**	**S**[15]
F. Factors affecting project performance			
1. Preparation and readiness	3.6.1	MS	MS
2. Project implementation and management	3.6.2	S	S
3. Stakeholders participation, cooperation and partnerships	3.6.3	S	S

[13] EO: Gender equality and HRBA (refer to 3.1.3 and 3.1.4) are also assessed under the 'Strategic relevance' criterion. Based on the analysis in this report and sample of additional project documentation analyzed by the EO, it can be concluded that moderately satisfactory application of gender equality and HRBA lowers the overall rating of the Strategic Relevance criterion. Thus EO rates this criterion as 'Satisfactory' (S).

[14] EO: As stated in the evaluation TOR: *All the dimensions of sustainability are deemed critical. Therefore, the overall rating for sustainability will be the lowest rating on the separate dimensions*. Thus, EO revised the overall rating for sustainability to be Unlikely (U) [technical revision based on the rating guidelines of the UNEP EO].

[15] EO: EO considered the project budget, time frame, external challenges and project team's ability to respond to the changing conditions as assessed in this report. Thus, EO rates the efficiency as 'Satisfactory' (S).

Criterion	Ref.	Rating	EO rating
4. Communication and public awareness	3.6.4	S	MS[16]
5. Country ownership and driven-ness	3.6.5	MS	MS
6. Financial planning and management	3.6.6	S	S
7. Supervision, guidance and technical backstopping	3.6.7	S	S
8. Monitoring and evaluation	3.6.8	MU	MU
i. M&E design	*3.6.8*	*MU*	*MU*
ii. M&E plan implementation	*3.6.8*	*MU*	*MS*[17]
Overall project rating		**MS**	**S**[18]

[16] EO: As the output 5 regarding the communications strategy was not achieved as planned and was reported to limit the extent of outreach activities, EO rates Communications and public awareness criterion as 'Moderately Satisfactory' (MS).

[17] EO: EO rates the M&E implementation as 'Moderately Satisfactory', because the project fulfilled its minimum monitoring and reporting requirements. Nevertheless, the EO agrees with 'Moderately Unsatisfactory' rating of the overall M&E due to insufficient M&E planning.

[18] EO: The overall project rating by EO is based on a numeric weighted scoring system (UNEP Evaluation Office, June 2016).

Recommendations and lessons learned

xxiii. The following section presents the main recommendations that have been generated based on this terminal evaluation:

Recommendation 1

Context:	UNEP's Capacity Building in National Planning for Food Security project is well aligned to UN commitments to increase global food production 50% by 2030 as called for by the UNSG, in order to meet increasing global demand for food. The Project's objectives which focus on a) promoting food security and b) ensuring sustainable ecosystem services in India and Uganda; have a catalytic role of increasing understanding of complex approaches Ecosystems Management Approaches (EMAs) to food security, by highlighting economic measures of ecological degradation. As also discussed in this evaluation report, this can positively influence the integration of food security planning using EMAs, into national food policies.
Recommendation:	This recommendation is made with specific reference to the Project's implementation challenges. They, refer to the withdrawal of Cuba and its replacement with Uganda against the context of reduced time and budget for activity implementation and the project's failure to achieve success with national stakeholders in India. As discussed in this report, this was due to severe time series data gaps for informing pilot studies on the trade-offs between food production, ESS, Ecosystem Management and other potential thematic areas (e.g. health, transport, economy, transgenic crops). This recommendation also takes into account the project's implementation successes. For example, the goodwill evidenced in Uganda through the initiation of processes for integrating EMA approaches to food production policy in national development plans. These factors together, coupled with the potential high risk of losing the interest and momentum generated by the Project with key partners in India and Uganda justifies funding by UNEP and its funding partners of a follow-up project, to be formulated without further delay with key stakeholders in the two target countries. The follow-up project is strongly recommended by the terminal evaluation, with focus on taking learning to the next level. By deepening understanding on the scientific, analysis of trade-offs between food production and ESS and other relevant sectors, the new project will likely achieve capacity building, buy in and national ownership. This will foster integration of EMAs into national food security planning and policy development in target countries and perhaps even globally in the longer term. *It is recommend that the follow-up project is formulated without further delay by UNEP and its funding partners in close consultations with key stakeholders in the two target countries.*
Responsibility:	UNEP, UNDA, other UN partners, Uganda and India governments, and key

	project partners
	Recommendation 2[19]
Context:	Knowledge and understanding on the trade-offs between food production and ecosystem services ESS.
Recommendation:	The evaluation strongly recommends that a follow-up project will be designed and funded, in order to build on the momentum, interest and demand created by this project amongst national stakeholders in India and Uganda. *As EMA is a relatively new scientific approach, training should focus on deepening learning. Therefore, longer and more frequent training sessions should be planned to allow for adequate time to absorb, understand and appreciate the new approach.*
Responsibility:	UNEP
	Recommendation 3[20]
Context:	Capacity building in EMAs.
Recommendation:	Based on the evidence on knowledge of EMAs, *the evaluation strongly recommends that the project targets both national and local level stakeholders for capacity building initiatives in future. The evaluation further recommends that pilot studies assessing trade-offs between food security, ESS provision and biodiversity be expanded to other agro and geo-ecological zones in each country, where different results and findings may be realized.* This will ensure that the capacity of a critical mass of Ministries, Departments, Agencies (MDAs) and other stakeholders is built. This approach will also promote the UNEP-HRBA principle, ensuring equal access to project benefits by vulnerable groups (for example, women and poor farmers in rural areas). To promote the drawing of conclusions on study recommendations and their integration into national food security planning using EMAs, *it is critical for UNEP to focuses its attention towards the quantification of costs of the Green Revolution on ESS and biodiversity.* This will require significant enhancements to the proposed follow-up project budget and adequate allocations within an expanded project timeframe, due to the data and capacity gaps and needs experienced so far in each country. Through its new focus on quantification of EMAs, the new project could help to strengthen the case/argument for integration of these approaches into food security policy. It will also help to capacitate key MDA and other stakeholders' abilities to sensitize policy makers and politicians to support relevant food policy change. The momentum initiated

[19] EO acknowledges the recommendation 2. Nevertheless, as the follow-up project in not planned for these target countries, it will be taken as a lesson to be considered in the design and implementation of other similar projects.

[20] EO: recommendation 3 consists of several recommendations. As the follow-up project is not planned for these target countries, these recommendations will be taken as lessons to be considered in the design and implementation of other similar projects.

	through quantifying impacts of the Green Revolution in India and intensification in Uganda on ESS and biodiversity should be continued. Otherwise, opportunities to influence positive change for achieving planned project impacts in target countries may be missed. Strengthening and documenting the comparisons between EMAs in Punjab and Uganda could have been a learning opportunity for policy makers in those countries. This should also be promoted in the proposed new project in the spirit of deepening UNEPs SSC mechanism in the project's target countries.
Responsibility:	UNEP and implementing partners in India and Uganda
	Recommendation 4[21]
Context:	Studies on trade-offs between food production and ESS.
Recommendation:	*UNEP and its funding partners should focus future efforts on improving the quality of pilot studies on EMAs, by enhancing the depth and scope of analysis possible, to measure and report on trade-offs between food production and ESS in India and Uganda.* In the case of India, this would require focus on time-series; historical data up to 70 years, with application of mixed research methods and primary data sources. Improvements to data quality in the case of Uganda should focus on improving the modeling approach used successfully by ICRAF. In the absence of reliable historical data, this approach is based on developing scenarios and conducting future projections. The costs associated with improving the quality of these case studies in India and Uganda needs to be projected in consultation with UNEP's implementing partners. As they are working on the ground, these partners have already initiated similar efforts and are best placed to provide more accurate estimates for consideration in new budgetary allocations.
Responsibility:	UNEP; Implementing partners in India and Uganda

[21] EO acknowledges the recommendation 4. Nevertheless, as the follow-up project is planned for these target countries, it will be taken as a lesson to be considered in the design and implementation of other similar projects.

xxiv. Although there were many lessons from this UNEP project, a few stand out and are highlighted by the terminal evaluation, for reflection and future consideration on similar UNEP projects[22].

Lesson 1	Options for strengthening the monitoring, evaluation and reporting (MER) function should be well considered on future UNEP projects involving multiple partners in multiple countries and regions of the world. *A key lesson learned is the need to incorporate a mid-term review on projects with funding duration of at least two years.* This is especially important for UNEP projects that address newer areas of research with partners engaged on Small Scale Funding Agreements (SSFAs), with a mandate to deliver on their agreements. The higher level of coordination required on this type of project necessitates adequate capacity within the project team to respond in a timely way to any implementation gaps and challenges. *UNEP should enhance its mechanisms and guidelines to support small and medium size projects in project monitoring.* This will help to effectively address service delivery gaps and promote timely up-scaling and expansion of successful strategies and interventions to achieve greater impact levels by UNEP. Adequate funding based on UNEP and other evaluation guidelines[23] should be accorded to these tasks following best practices for evaluation. This will enable the use of mixed methods for monitoring and evaluation (M&E) activities such as baseline data collection, activity reviews, mid- and end-term evaluations, field visit monitoring, capacity building, and M&E system development in line with results-based management practice. Tighter coordination would ensure timely and adequate delivery of services at national and local levels and promote the achievement of desired, planned results.
Application	Outcome 1: Increased understanding & knowledge on ESS, Ecosystem Resilience, economic development & human wellbeing; and Outcome 2: Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA
Lesson 2	To promote the long-term sustainability benefits and impacts beyond the UNEP project and to manage government bureaucracy, *it would be advisable for UNEP to consider signing Memorandum of Understanding (MOU) agreements with national governments to support the achievement of objectives and goals of funded projects.* MOUs can be either formal, or informal, non-legally binding agreements that are used to formalise and promote commitment by all partners. MOUs have the added value of helping to clarify the roles and responsibilities of

[22] EO would extend the application of these lessons beyond the project related outcomes as indicated in the below table.

[23] Evaluation budgeting guidelines can be found on www.oecd.org

	each involved party as well as stipulating the agreed mutual benefits. MOUs can be reviewed, monitored and also adapted with the emergence of new information about strategies that can best promote the achievement of planned results. A MOU with the Government of India for instance would have been a useful point of reference, providing justification and high level support for the project stakeholders who include EAG members and implementing partners. Such an agreement may have helped to foster cooperation, resulting in future integration of pilot study findings on analysis of trade-offs between food production and ESS into national food policies. A MOU can specify the target government's financial and/or in-kind commitments towards ensuring that benefits accrued from UNEP projects are sustained beyond the project period. In addition, there would be need to follow up recommendations for each government with adequate budgetary allocations.
Application	Outcome 2: Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA
Lesson 3	A number of factors were critical for ensuring the successful implementation and completion of project activities in each country. They include the establishment of EAGs, comprising of state and non-state actors; conducting learning and findings sharing workshops on EMAs; leveraging the work of UNEP's implementing partners; and promoting synergies between them. It also includes mitigating the risks of reduced effectiveness from Cuba's withdrawal from the project one year after implementation, through identification of a suitable alternative country (Uganda). By engaging a national institution (NPA) as the lead implementing partner championing the project in Uganda, the Project was able to significantly accelerate the pace at which project results were achieved, despite the challenges of a reduced project time-frame and budget. In the case of India the lessons learned from difficulties with coordination experienced by the lead NGO partner (GIST) highlights the *need for UNEP to ensure periodic monitoring, review and feedback of its coordination strategies with lead, national partner champions. This would help to adequately address potential gaps of service that may hinder the achievement of planned results by similar UNEP projects in future.*
Application	Outcome 2: Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA.
Lesson 4	Project stakeholders noted the complexity of EMAs which are neither widely understood nor information easily accessible in the literature. Assumptions by the Project of the existence of relevant data sources in established repositories of agricultural and environmental data (e.g. PAU) were however proved

inaccurate. This is due to the new ecosystems services rather than traditional economic measurement focus of ecological impacts from food production practices. These require new data and approaches to be applied. The need to seek additional historical, time-series data from primary sources (farmers) in order to accurately perform scientific analysis studies on ecological trade-offs of food production in India was unforeseen by the Project.

A useful lesson learned is the need to allocate adequate time, financial and human resources into the PRODOC design for future UNEP projects of this kind. This would provide a contingency and help mitigate for potential risks of unforeseen activities requiring additional investment. Complaints by some project partners and EAG members concerning the inadequacy of time for absorption of new EMAs, and severe deficiencies of historical time-series data for conducting accurate trade-off analysis compromised the learning experience provided through training outputs. EAG members called for improved coordination by key partner institutions, with wider level engagement and systematic feedback processes built into the project. Enhanced access to resource persons to promote learning and information exchange under the SSC mechanism of UNEP is vital to the new approach, facilitating mechanisms for continued future collaboration.

Application: Outcome 1: Increased understanding & knowledge on ESS, Ecosystem Resilience, economic development & human well being

1.0 INTRODUCTION

2. The subject of this Terminal Evaluation (TE) is the Project "Capacity Building in National Planning for Food Security" funded by UNDA 7th Tranche (hereinafter referred to as "the Project") initially for two years, from 8th August 2011 to 7th August 2013. The project timeframe was however extended until June 2014. The terminal evaluation of this project was scheduled following the end of the funding cycle in June 2014, in line with the United Nations Environment Programme's (UNEP) Evaluation Policy[24] and UNEP Evaluation Manual[25]. Its implementation was, however, delayed by a period of nearly one year, for reasons described in study limitations section of this report.[26] Implementing partners of the Project included UNEP's Division of Environmental Policy Implementation (DEPI) in collaboration with the UNEP Regional Office for Asia and the Pacific (ROAP).

1.1 Subject and scope of the evaluation

3. The Terminal Evaluation of the Project "*Capacity building in national planning for food security*" was undertaken to assess project performance using the following evaluation criteria: relevance, effectiveness and efficiency, and sustainability of results (outcomes and potential impacts). The geographical scope of the evaluation was India and Uganda. The evaluation focused on the results of collaboration between UNEP and its partner institutions (ICRAF, GIST, PAU, IIFM and NPA). The Terminal Evaluation was initiated in March 2015 originally over a three month period. However due to unforeseen delays the evaluation period extended to end of 2015. Findings and results of the evaluation are expected to retrospectively measure and determine the extent to which the Project's objectives and implementation strategies were consistent with global, regional and national environmental issues and needs.

1.2 Evaluation objectives

4. The Terminal Evaluation of the UNEP/UNDA "Capacity Building in National Planning for Food Security" Project served two primary objectives:

   i. To provide evidence of results and meet accountability requirements

   ii. To promote operational improvement, learning and knowledge sharing through results and lessons learnt between UNEP and partners of the 'Capacity Building in National Planning for Food Security project' (ICRAF, NPA, GIST, PAU, and IIFM).

[24] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/Default.aspx

[25] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationManual/tabid/2314/

[26] See the study limitations and challenges in Section 1.5

1.3 Evaluation approach and methodology

5. The evaluation was conducted under the overall responsibility and management of UNEP Evaluation Office (EO), in consultation with the UNEP-DEPI project manager and coordinators of the Ecosystem Sub-Programme. The approach was consultative and the consultant maintained close communication with the project team throughout the evaluation implementation phase. This helped to clarify any information requirements for a quality output and to foster ownership of the findings by the Project. Evaluation participants included the UNEP-DEPI project management team, evaluation officers within the UNEP EO, key implementing partner organizations and EAG members in India and Uganda. A mixed methods approach was adopted by the evaluation including:

   (1) Desk reviews of primary project documents and secondary materials[27]

   (2) Key informant interviews with UNEP DEPI and UNEP EO officers; project partners (i.e. PAU, GIST, IIFM, INSEE, NPA & ICRAF) and national expert advisory group (EAG) members in Kenya, India and Uganda;

   (3) An email based survey with EAG members in India and Uganda

   (4) Field visits with key partners and stakeholders in Kenya, India and Uganda, ICRAF Nairobi and Uganda; NPA, NEMA and the Wildlife Conservation; Delhi University – Department of Economics, and to Chandigarh, Punjab State.

6. These methods allowed for triangulation of various sources of evaluative data and information, enabling in-depth and detailed analysis of the findings, and promoting a holistic understanding about the project's actual achievements and challenges, as measured against its planned results.

7. In addition, the consultant reconstructed the original logical framework into a theory of change (ToC) diagram. The reconstruction was based on the consultant's own understanding of the project from initial document reviews and meetings with UNEP HQ staff. However this ToC diagram was later revised following the field visits and wider consultations with project stakeholders in India and Uganda.

8. A survey using semi-structured and open ended questions was sent via email to 15 key stakeholders in India, selected using purposive sampling. The survey was planned in an effort to save time, to expedite data collection and provide India based partners and stakeholders adequate time to share their views and opinions as a mitigating measure due to unexpected delays experienced with the evaluation. The survey sampling strategy was based on a sampling frame with 21 potential respondents provided by the project. The criteria was mainly based on the stakeholders' priority as indicated by the project team, their level of involvement with the Project and their accessibility in person or virtually based on accurate contact details. However, due to the very low survey response rate, (two stakeholders responded out of 21) despite several follow-up attempts by the consultant by email and

[27] See Bibliography (Annex 2)

phone, the survey questionnaire[28] was converted into a semi-structured interview guide for use with project partners and key stakeholders, through in-person and Skype interviews. These partners and stakeholders included EAG members comprising of scientists, MDA officials and NGO representatives from ICRAF, GIST, Delhi University, IIFM, NPA, NEMA, and WCS.[29]The interview responses were summarized, analysed and reported against the evaluation questions. They were later triangulated with findings from desk review and UNEP and UNDA interviews and consolidated into the terminal evaluation report. The low survey response rate contributed to the evaluation's challenges in accurately assessing the project's impacts in India specifically.

1.4 Gender equity and human-rights responsiveness

9. The Capacity Building in National Planning for Food Security project was designed before gender equity and human rights responsiveness was effectively incorporated into UNEP's project designs. Although the Terminal Evaluation was not able to accurately assess this aspect, an attempt has been made in the findings section below to address these issues taking into account the significance of UNEP's gender strategy as elaborated in the Gender Plan of Action (GPA) (2006-2010) and its accompanying accountability mechanisms[30]. The GPA was available to the project team at the time of its design and implementation and would therefore have been relevant for accountability purposes.

1.5 Study challenges and limitations

10. There were several revisions to the proposed implementation schedule due to system-wide changes in deploying the UN *Umoja*. As a result, the changing evaluation implementation and field visit schedule presented a challenge in terms of rescheduling appointments with project stakeholders and survey respondents. Outdated contacts necessitated validation and updating of the participant contact list by UNEP Project team and the consultant, resulting in the exclusion of some potential key respondents from the original list, and loss of valuable time for the evaluation. As described previously, the low survey response rate with Indian stakeholders and partners and delays in data collection posed a challenge for accurate analysis and reporting on project impacts with partners and stakeholders in India. In addition, gender considerations by the project could not be accurately assessed, as it was not clearly evident from the literature or the interviews whether any systematic processes were put in place by the project, to promote gender equity in the project.

11. The evaluation team did not take into account the recent changes in travel regulations affecting international visitors to India. As a result, flights to India were cancelled and rebooked for a later date delaying the data collection. The rescheduled flights in June 2015 had to be again cancelled and rescheduled due to heat waves in India, making it difficult to

[28] See Survey Questionnaire (Annex VI)

[29] See list of list of evaluation participants Uganda and India (Annex II)

[30]http://www.unep.org/eou/Portals/52/Reports/Review%20of%20Gender%20Mainstreaming%20in%20UNEP_final%20report%20with%20annexes.pdf

carry out the assignment smoothly at that time. The wide geographic spread of key project partners and stakeholders in India (Delhi, Bhopal, Chennai, and Ludhiana) restricted the scope and depth with which mixed methods could be applied appropriately with key stakeholders at various levels, due to budgetary and time constraints. The consultant however mitigated this challenge by introducing virtual data collection methods simultaneously with face-to-face meetings in India to maximize efficiency.

1.6 Main Evaluation Criteria and Questions

12. The aim of the Terminal Evaluation was to assess the Project's performance against its stated objectives, in line with the UNEP Evaluation Policy and the UNEP Programme Manual. The evaluation criteria were stated in the Terms of Reference for the evaluation and are aligned with globally accepted standards as stipulated in the UNEP Evaluation Policy Manual and the Organization for Economic Cooperation and Development/Development Assistance Committee (OECD/DAC). These criteria are expounded in the Evaluation TOR and stated as follows: a) Strategic relevance; b) Attainment of objectives and planned results; c) Sustainability and replication; d) Efficiency; and e) Factors and processes affecting project performance. The Terminal evaluation sought to identify useful lessons on operational relevance, so as to inform future project formulation and implementation.

13. Key questions that guided the analysis of evaluation findings on the project's experience in achieving intended results are listed below:[31]

    i. How successful was the Project in facilitating knowledge, understanding and building capacity at local and national level to identify environmental impacts and ecosystems degradation related to food production systems in Punjab State and Uganda?
    ii. To what extent did the Project succeed in enhancing knowledge among stakeholders on the trade-offs between food production and ecosystem services-with focus on three aspects: ecosystem resilience, economic development and human well-being?
    iii. How successful was the Project in building capacity of decision makers at national level, to evaluate their food security strategies from an ecosystem services (ESS) perspective utilizing relevant ecosystem management approaches (EMAs)?
    iv. To what extent has the Project contributed to the integration into national development and planning process, of food production issues in light of ecosystems?
    v. Is there evidence of target countries realigning their national environment programmes to address the synergies between food security and ecosystem degradation related to food production systems as a direct or indirect result of the Project?
    vi. What were the most effective strategies used by the Project?
    vii. What were the key drivers and assumptions required to influence the achievement of project's planned objectives and results?

[31] Note: The questions as presented in the TOR will guide the evaluation. However the consultant will use probing techniques to promote comprehensive, in depth review and analysis of the issues. These will inform the lessons learned, conclusions and recommendations emanating from the evaluation.

2.0 PROJECT BACKGROUND

2.1 Project context

14. One in seven people today lack access to sufficient protein and energy in their diets, despite half a century of efforts being directed towards growth of food production around the world. Current world demographic trends: increase in world population and consumption patterns, coupled with the unrelenting threat of climate change and irreversible ecosystem service degradation, render high uncertainties in our current food production model. In light of this global challenge, the UN Secretary General (UNSG) recently announced the urgent need to increase global food production by 50% by 2030. The UN Comprehensive Framework for Action (CFA) was developed for the purpose of assessing response strategies to the global crisis in a coherent and coordinated manner. The Framework represents a consensus view of the UN system, including Bretton Woods's institutions and other relevant international organizations.

15. The East African country of Uganda, with a population estimated at 34.9 million, grew by 10 million people in 12 years from (2002-2014).[32] With population growth at 3.2% and food production estimated at 2.7% p.a., the country is faced with serious food challenges with over 20% of the country's population having unacceptable food consumption chiefly comprising of starch, vegetables and very little protein. This situation is more pronounced in rural areas amongst poor households (WFP 2013) and is expected to worsen with the heavy dependence on agriculture, high poverty levels, and with growing and competing regional demand for agricultural products. Agricultural production is key to ensuring food security in Uganda.[33] Increasingly, however Uganda's farmers are faced with reduced access to food production, due to the high cost of seed and farm inputs which most poor rural farmers can ill afford as most rely on rain fed agriculture making them vulnerable to weather conditions and to drought. This results in decreased yields and pushes food prices in an upward trend. Inadequate public investment in agricultural intensification and technology such as irrigation; the lack of extension services; unclear land ownership policies; poor infrastructure and low market access further compound the problem. This has led to the focus on food production to meet food security targets, yet with little concern for the environmental and social impacts of these strategies. Negative practices of extensification (increases in area under cultivation) result in significant deforestation, encroachment in to wetlands and grasslands, affecting ecosystems provisioning services and biodiversity including soil quality, water availability, plant species, wildlife and other animal life. The threat to future food security requires urgent intervention in order to promote sustainable development in Uganda. [34]

[32] National Population and Housing Census 2014 (Provisional results) http://www.ubos.org/onlinefiles/uploads/ubos/NPHC/NPHC%202014%20PROVISIONAL%20RESULTS%20REPORT.pdf

[33] Analysis of Trade-offs Between Food Production and Ecosystem Services "Project publication prepared by UNEP and its partners in Uganda: World Agroforestry Centre, National Planning Authority, and National Environment Management Agency-Uganda. (2014)

[34] Stakeholder presentations from project final workshop (July 2014) (Ugandan stakeholders)

16. In India, arable land makes up 56.8% of the overall land zone of the country, although it is gradually diminishing due to continuous strain from an ever-increasing number of inhabitants and growing urbanization. The Green Revolution (GR) saw an increase in food production, through the introduction of high-yielding seed varieties and increased use of chemical fertilizers, which provided the increase in production needed to make India self-sufficient in food grain. However the share of GDP contribution by agriculture in India is on a downward trend from 16% in 2004-05 to 12.3 % in 2009-10. This situation must be seen in the context of increasing agricultural population density (or agricultural population per hectare of arable land under permanent crops) and declining share of agricultural yield due to ecological trade-offs.

17. Punjab State, the focus area of the UNEP Project, is known as the "food bowl of India" as it produces almost 19% of the wheat, 11% of rice and from just 1.53% of the geographical area of the country.[35] Ecosystem provisioning services in the form of food and fibre are the main products from agro-ecosystems in Punjab State. Bio-energy produced in abundance as a by-product of intensive agriculture is all being wasted due to unsustainable practices of open field burning. Unlike the current situation in Uganda, there is little threat to ecosystem services and goods such as fish, biodiversity, water purification, and wildlife habitats, as its presence is negligible in the State due to the clearing of forests, wetlands and pasture, long ago to make land suitable for agriculture.[36]

18. Scientific reports reveal that consumption of chemical fertilizers witnessed an eightfold increase in Punjab State, *(average for 2005–08)* in the past 35 years. Wheat and rice are the most nutrient-exhaustive crops, depleting the soils of 80% of its Nitrogen, Phosphorous, Potassium and Sulphur and 77% of Zinc each year due to intensive mono-cropping and crop monoculture. To compensate these loses Punjab State encouraged via subsidy, the use of chemical fertilizers to achieve self-sufficiency in grain production. Cultivation of high yielding varieties with high subsidies, fertilizers and irrigation has led to an increase in pest problems and more than doubling of pesticide consumption over the last 35 year period. The number of tube-water wells increased 16 fold over the same period from 45,921 (1962–65) to 722,103 (2005–08), as a result of water shortages and overdrawing of ground water resources. The depth of the water table has also increased causing the existing as well as the new tube-water wells and borehole wells to be dug deeper. Crop diversification has reduced significantly according to the diversification Index (DI) for Punjab State declining as a whole from 0.707 in 1970–71 to 0.591 in 2001–02. This highlights the fact that rice and wheat have continued to grow in terms of area and production at the cost of other crops, with the diversity in the output mix decreasing continuously over time, signaling a decline in genetic diversity, which is an important ecosystem service and causing a deepening agrarian crisis. Increased costs of production and falling farm prices that go hand in hand with globalization, combined with the decline in farm credit is putting an unbearable debt burden on farmers.

[35] Findings Report – Food Production and Environment Issues in Punjab Ten Important Findings (Punjab Agricultural University) (undated)

[36] Findings Report – 10 major findings from scientific assessment of the trends of ecosystem services from agricultural ecosystems in Punjab (IIFM)

19. Many constraints must be overcome if significant agricultural and commodity supply response will be realized, without negatively compromising efforts directed towards poverty alleviation and environmental sustainability for the greater good. There is need for enhanced understanding and appreciation of interrelationships between food production and impacts on the ecosystem. Small-scale holders, specifically women, who are central to ensuring food security are however most vulnerable when it comes to food shortages. Poorer urban populations are also at risk; therefore, attention is also needed on peri-urban and urban agricultural production.

20. The "Ecosystems and Human Well Being: Policy Responses" Millennium Ecosystem Assessment (MA) Report submitted to the UN General Assembly a decade ago, in March 2005, cited evidence of a fundamental trade-off between the need to increase food production in the long run and capacity of the eco systems to support it. Findings from scientific research including a recent review article published in the prestigious Science Journal highlighted three things that should be implemented if global food security is to be realized[37]: a) Match the changing demand for food b) do so in an environmentally and socially sustainable way; and c) Ensure the world's poorest are no longer hungry

21. Food production is cited as the single largest user of ecosystems and their provisioning services, contributing the greatest impact on ecosystems services and biodiversity. Recommendations ensuing from these reports highlight the need to urgently promote increased knowledge and understanding about fundamental trade-offs between food production and eco-system services (ESS) as well as potential synergies which are not well understood so far. This is with a view to encourage the development of long term food security strategies that encompass sustainable environmental management and ensure overall sustainability of developing nations. This is also with a view to mitigate negative impacts of food security strategies on ESS and biodiversity, through the introduction of appropriate regulatory frameworks for enhanced sustainability of future generations at all levels: local to global.

22. In response to the Millennium Ecosystem Assessment (MA) report findings and recommendations, the three-year (2011-2014), UNDA 7th Tranche Funded "UNEP's Capacity Building in National Planning for Food Security Project" was initiated at a cost 710,000 USD. The project aims to address issues of environmental and social sustainability in food production systems by taking an ecosystems perspective.

23. At the start of the project in 2011, activity implementation was undertaken by UNEP's Division of Environmental Policy Implementation (DEPI), in collaboration with the UNEP Regional Office for Asia and the Pacific (ROAP) and the Regional Office for Latin America and the Caribbean (ROLAC). The project targeted India, a country with existing historical data, which was useful for this project with limited funds. Punjab State with its very fertile lands had potential to become a food exporting economy. However, due to poor agricultural practices (mono-cropping of food grain: mainly rice and wheat during the green revolution of the early 1960s and 1970s), serious negative trade-offs between food production and the provision of

[37] Food security: The Challenge of Feeding 9 Billion People: Science number 327(5967)

ecosystem services were being experienced. Cuba, a source list country with a controlled economy and systems, was identified as a second country case study for the Project due to increased food production with potential for learning about existing and potential trade-offs in ESS.

24. UNEP, in collaboration with Cuban scientists, institutions and an international expert and with facilitation by the UNDP office in Cuba, initiated project formulation and design activities in 2011. However, difficulties experienced in the early stages included bureaucratic bottlenecks with slow response by Cuban authorities on project approvals, coupled with unexpressed discomforts with the use of globally accepted scientific terminology (e.g. the term trade-off). This culminated with the decline and withdrawal of Cuba from the Project on 4th October 2012 – an unforeseen setback for the Project that prompted urgent consultations between UNEP and the UNDA Secretariat to identify a suitable, replacement country. The West African country of Niger was initially proposed, but later deemed unsuitable within the context of a markedly reduced project time-frame and budget. Further consultations between UNEP and its partners including ICRAF narrowed down on Uganda. Its proximity to the UNEP HQ in Kenya and geographical location and ecosystem challenges were ideal for fostering SSC principles. Uganda's agricultural intensification practices that closely mirror those of Punjab State in India confirmed it as a suitable replacement for Cuba.

2.2 Project objectives and components

2.2.1 Goal and objectives

25. The overall development goal of the UNDA 7th tranche funded UNEP project "Capacity building in national planning for food security" was to: *integrate environmental issues into development and agricultural policy and national planning*. Its primary objective was to: *strengthen the capacity at the national level to identify environmental impacts and ecosystem degradation related to food production systems in the two countries: India (Punjab State) and Uganda*[38].

2.2.2 Components

26. The Capacity Building in National Planning for Food Security Project had two main components:

<u>Component 1: Understanding and Knowledge</u>

27. The aim of this project component was to enhance understanding and knowledge of national stakeholders in the target countries of India and Uganda on trade-offs between food production and ecosystem services. This was planned through the establishment of national expert advisory groups; implementation of training workshops and by conducting pilot studies focusing on the three aspects: a) ecosystem resilience, b) economic development and c) human well-being.

[38] Source : Logical Framework (Annex 1) as expressed in the project document (Prodoc)

Component 2: Capacity-Building

28. The second project component focused on building capacity through the national expert advisory groups on a) national stakeholder's capacity to evaluate findings from analysis of ESS trade-offs; b) conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management[39] c) developing an outreach strategy for disseminating study findings. This strategy was expected to increase national level capacities to evaluate sustainable food production strategies, for integration into national planning using an Ecosystem Management Approach (EMA).

29. Table 2 presents the programme logic in the form of a results matrix as envisioned in the project's design. The Log-frame was used to develop a more detailed theory of change diagram factoring in the change pathway and drivers of change (see Figure 3 below).

Table 2: Project logical framework

Components	Activities	Outputs	Output Indicators	Outcomes	Outcome Indicators
Understanding and Knowledge	**Activity 1: Establish national expert advisory group composed of policy makers, legislators, local academic institutions and NGOs on planning for sustainable food production and ecosystem services**	**Output 1: National experts advisory groups composed of policy makers, legislators, local academic institutions and NGOs on planning for sustainable food production and ecosystem services established.**	**The number of groups established (one per country)** **M2 A national expert advisory group established and an inception workshop completed in Punjab State (India).** **M5 A national expert advisory group established and the inception workshop completed in Uganda.**	**EA 1: Increased understanding and knowledge among national stakeholders of the trade-offs between food production and ecosystem services by focusing on three aspects: ecosystem resilience, economic development, and human well-being**	Increased number of national stakeholders with increased knowledge about trade-offs between food production and ecosystem management as well as with the ability to undertake trade-off analysis between food production and ecosystem services in terms of ecosystem resilience, economic development, and food security.
	Activity 2: Organize training workshops for members of the national expert advisory groups on conducting a trade-off analysis on food production system and ecosystem services	**Output 2: Training workshops for members of the national expert advisory groups on conducting a trade-off analysis on food production system and ecosystem services.**	**The number of specialized trainings organized (one per country)** **M3 An outline of training modules completed for the training in Punjab State (India).**		Increased number of national stakeholders and personnel linked up at the national as well as at the international level with experts and policy maker's networks with particular relevance to food production and ecosystem management.

[39] Logical Framework in Terminal Evaluation TOR

Components	Activities	Outputs	Output Indicators	Outcomes	Outcome Indicators
	Activity 3: Conduct pilot studies to understand trade-off of food production and ecosystem services, by undertaking trade-off analysis on food production and ecosystem services at three levels: ecosystem resilience, economic development and human development	**Output 3: Pilot studies to understand trade-off of food production and ecosystem services by undertaking trade-off analysis on food production and ecosystem services at three levels conducted on ecosystem resilience, economic development and human development Conducted.**	**Technical reports of completed pilot studies (one per country)**		**Increased number of national technical documents on the value of food production related ecosystem services and links with MDGs**

Components	Activities	Outputs	Output Indicators	Outcomes	Outcome Indicators
Capacity Building	**Activity 4: Organize workshop for members of the national expert advisory group to evaluate the findings of the trade-off analysis, conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management**	**Output 4: Workshop for members of the national expert advisory groups to evaluate the findings of the trade-off analysis, concluded on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management.**	**The number of workshops (one per country)** **M12 A final workshop held in Punjab State (India).** **M13 A final workshop held in Uganda.** **M14 A final workshop for the project held and findings disseminated.**	**EA 2: Improved capacity at the national level to evaluate a sustainable food production strategy and its integration into national planning using an ecosystem management approach**	Increased number of national stakeholders and personnel able to integrate food security/food production related ecosystem management strategies into national food security/production plans.
	Activity 5: Develop An outreach strategy for disseminating the findings of the study to all relevant stakeholders.	**Output 5: An outreach strategy for disseminating the findings of the study to all relevant stakeholders conducted.**	The number of policy dialogues and outreach events on the integration of ecosystem management strategies into national food security/production plans. **Target: 3 dialogues/events**		
			M15 A web-based knowledge management platform developed		

			for the project.		

2.2.3 Target areas and groups

30. The project's target implementation countries were India (Punjab State) and Uganda with studies focused on Hoima District in Western Uganda[40]. The project targeted mainly national level stakeholders (decision and policy makers) from the National Planning Authority, and National Environmental Authority, as well as international organizations namely ICRAF involved in scientific research on ecosystems management and NGOs involved in environmental conservation in Uganda. Similarly, the project targeted national level stakeholders in Punjab State, research and scientific organizations engaged in measuring ecosystems and ecological impacts of agricultural activities, and tertiary education institutions with research capacity and historical data on environmental impacts and trade-offs between food production and ecosystem services.

2.2.4 Key dates in project design and implementation

31. Table 3 below presents the milestones and key dates in project design and implementation.

Table 3: Key dates in project design and implementation

Milestones	Completion dates
Project design	Not available (N/A)
Project approval internally within UNEP	9th February 2010
Donor agreements signed	22nd September 2010
Legal instruments (SSFAs) with partners signed: • NPA, ICRAF, GIST, IIFM, INSEE, PAU	22nd August 2013 (NPA) 12th June 2013 (ICRAF) 8th July 2011 (GIST) 5th August 2011 (IIFM) 26th August 2011 (INSEE) 27th July 2011 (PAU)
Project launched	8th August 2011
PRODOC amended	15th March 2013
Project extension requested on	2nd September 2013
Project extension approved on	15th March 2013
Project concluded	31st July 2014

[40] Hoima District was previously known as the Southern part of Bunyoro District, Western Uganda.

2.2.5 Implementation arrangements

32. The Project contributes to the United Nations Development Assistance Framework (UNDAF) and targets mainly national level stakeholders; mainly government officials from the ministries of planning and investment, agriculture, environment, fisheries, energy, and the scientific community and NGOs working in this field. As the main implementing agency, UNEP Division of Environmental and Policy Implementation (DEPI) was responsible for project coordination, policy analysis and outreach in collaboration with its funding partner UNDA. Also in India with a national level consultative committee in India, formed by GIST and comprising agricultural experts and economists with detailed knowledge of the issues.[41] Also with local partners led by the NPA in Uganda who facilitated stakeholder engagements by organizing capacity building workshops, identifying and inviting members of the national Expert Advisory Groups (EAGs), and ensuring that pilot study findings feed into national food security planning processes. On 8th June 2012, the national level consultative committee led by GIST submitted a report on their meeting under the new title: "Steering Committee" This report was included in the UNEP Progress Report for January 2012-December 2012.[42]

33. It reported an implementation rate of 35%. This progress report constituted the final project report following the initial 2 year funding period. As far as the evaluation could substantiate so far, there was no prior or later reference to a Steering Committee for the UNEP project in Uganda and India. This is viewed by the evaluation as an implementation gap which impacted negatively on the project's ability to achieve its objective of promoting information exchange between India and Uganda. In India, national level organizations such as GIST partnered with UNEP to coordinate and organize workshops with EAG members in Punjab State; also on conducting pilot studies with other partners and assisting with outreach and dissemination of research study findings. IIFM partnered with UNEP on a scientific assessment of trade-offs in food security policy and ESS in Punjab State as well as the establishment of national advisory group. INSEE partnered on outreach knowledge promotion amongst national level stakeholders on trade-offs between food production and ESS. PAU partnered with UNEP to develop case studies by collecting and analysing scientific data and evidence on the trade-offs between food production and ESS in Punjab State for national stakeholders.

2.2.6 Project financing

34. As indicated in the Project Identification Table 1 above, the total project cost was 710,000 USD.[43] Of this amount a total of 657,271 USD was mobilised and expenditure reported in the various financial reports submitted to the executing agency (UNEP). The balance, 52,729 USD was reserved for this Terminal Evaluation. This expenditure is yet to be reported by the project.

[41] UNEP Progress Report (Jan-Dec 2011)

[42] Annual Development Account Progress Report (UNEP)

[43] Project Document : Project Title : Capacity Building in National Planning for Food Security (2010)

2.2.7 Project partners

35. As previously stated, the main stakeholders comprised the executing agency: UNEP, the funding partner: UNDA and implementing partners: ICRAF, NPA in Uganda and GIST, INSEE, IIFM, PAU, in India and Uganda. NPA's role involved facilitation of stakeholder engagements, organization of capacity building workshops, & establishment and management of the national expert advisory group in Uganda. Also, ensuring that the findings of the pilot study feed into national planning processes geared towards developing sustainable food production strategies in Uganda. ICRAF's role was to conduct pilot studies in Uganda to analyze tradeoffs between food production and ecosystem services in Hoima District, Uganda, through field-based research & data collection. The organization was to also provide inputs to other project activities implemented by UNEP & other partners.

36. GIST in India was to lead overall coordination of the project in Punjab State, specifically workshop organization, development of training modules, coordination of the pilot study in India in collaboration with other partners and to conduct outreach and dissemination of research findings on tradeoffs between food production and ecosystem services. PAU had the mandate of implementing the research component of the project, to develop case studies by collecting & analyzing data and to draft reports on tradeoffs aimed at increasing the understanding & knowledge among national stakeholders of the tradeoffs between food production & ecosystem services in Punjab State, India. IIFM was responsible for providing technical inputs to the pilot study, to undertake a scientific assessment on the tradeoffs associated with food security policies and ecosystem services in Punjab State and to establish and manage the national expert advisory group. INSEE's role involved organizing outreach activities to increase understanding and knowledge amongst national stakeholders on the tradeoffs between food production & ecosystem services in India.

2.2.8 Reconstructed Theory of Change of the Project[44]

37. It was difficult to accurately assess the impacts of the Project due to lack of baseline data and implementation delays following the withdrawal of Cuba. This situation reduced the project budget and timeframe available for achieving results in the replacement country-Uganda. Assessment of impacts was further impeded by severe insufficiency of historical time-series data in India. This limited partners' abilities to complete the pilot studies and to integrate the findings into national food security policies. Change pathways leading from project outputs to impacts were however rigorously assessed by the terminal evaluation, using the 'Review of Outcomes to Impact' (ROtI) method that examines the theory of change. The purpose, as the TOR suggests, was to identify the sequence of conditions and factors deemed necessary for project outcomes to yield impact and assess the current status of and future prospects for results. This was particularly useful for this project that was originally planned for duration of two years, and later extended to three years mainly due to the need to incorporate more time

[44] Note: The wording in the reconstructed ToC has been shortened, and may therefore not reflect the exact wording in the Log-frame due to space considerations. However the descriptive text within the document makes reference to terminology as presented in the Log Frame for outputs, outcomes, and planned impacts.

for activity implementation. The original project timeframe design for a two year funding cycle exempted it from the requirement to conduct a mid-term evaluation.

38. The strength of the ToC model is in its ability to articulate and identify the incremental changes that need to be achieved towards realizing planned outcomes and impacts. The ToC therefore adds value to the traditional logic model by expounding on these factors that are key to influencing achievement of desired change.

39. The primary objective of the Project according to the PRODOC was to "strengthen the capacity at the national level to identify environmental impacts and ecosystem degradation related to food production systems" in the two countries: India (Punjab State) and Uganda. The underlying factors involved the desire to increase knowledge and understanding of national level stakeholders on the need to appreciate the inter-relationship between intensified food production and its impacts on ecosystem services. Also increasing understanding on the distributive impacts of policy decisions for increasing food production; mitigating impacts on ecosystems and sustaining their capacity for future generations through the introduction of appropriate regulatory frameworks at all levels – local to global. This would control for externalities affecting the capacity of ecosystems to sustain their food provisioning services. Ultimately, the Project was expected to contribute to the achievements of Millennium Development Goals (MDGs) 1 and 7, alluding to poverty eradiation and environmental protection respectively, by adopting learning by doing approaches through national level capacity building.

40. The five project outputs as stated in the project log frame are as follows: Output 1: National experts advisory groups composed of policy makers, legislators, local academic institutions and NGOs on planning for sustainable food production and ecosystem services established; Output 2: Training workshops for members of the national expert advisory groups on conducting a trade-off analysis on food production system and ecosystem services; Output 3: Pilot studies to understand trade-off of food production and ecosystem services by undertaking trade-off analysis on food production and ecosystem services at three levels: ecosystem resilience, economic development and human development; Output 4: Workshop for members of the national expert advisory groups to evaluate the findings of the trade-off analysis, conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management. Output 5: An outreach strategy for disseminating the findings of the study to all relevant stakeholders.

41. As also depicted in the reconstructed ToC (see figure 3) outputs 1-3 are linked with the first direct outcome – *Increased understanding and knowledge among national stakeholders of the trade-offs between food production and ecosystem services by focusing on three aspects: ecosystem resilience, economic development, and human well-being*. While Outputs 4 and 5 are concerned with the second direct project outcome – *Improved capacity at the national level to evaluate a sustainable food production strategy and its integration into national planning using an ecosystem management approach*.

42. These direct outcomes are expected to lead to the medium-term outcome – integration of environmental issues into development and agricultural policy and national planning in Punjab State and Uganda aligned with EMA. The evaluation identifies one driver and two

assumptions that, if present, will contribute to realization of the medium-term outcome The driver is that critical mass of project stakeholders (i.e. key decision makers) at national and local level understand and appreciate ESS and EMA approaches in policy making (driver 1). The first assumption to support the realization of medium-term outcome is that the Governments are changing their approach from centralised to decentralised food purchase and where possible commit to support farmers to grow non market driven to discourage harmful mono-cropping of market driven crops (assumption d). The second assumption is adequate resources mobilization to support the dissemination strategy (assumption f).

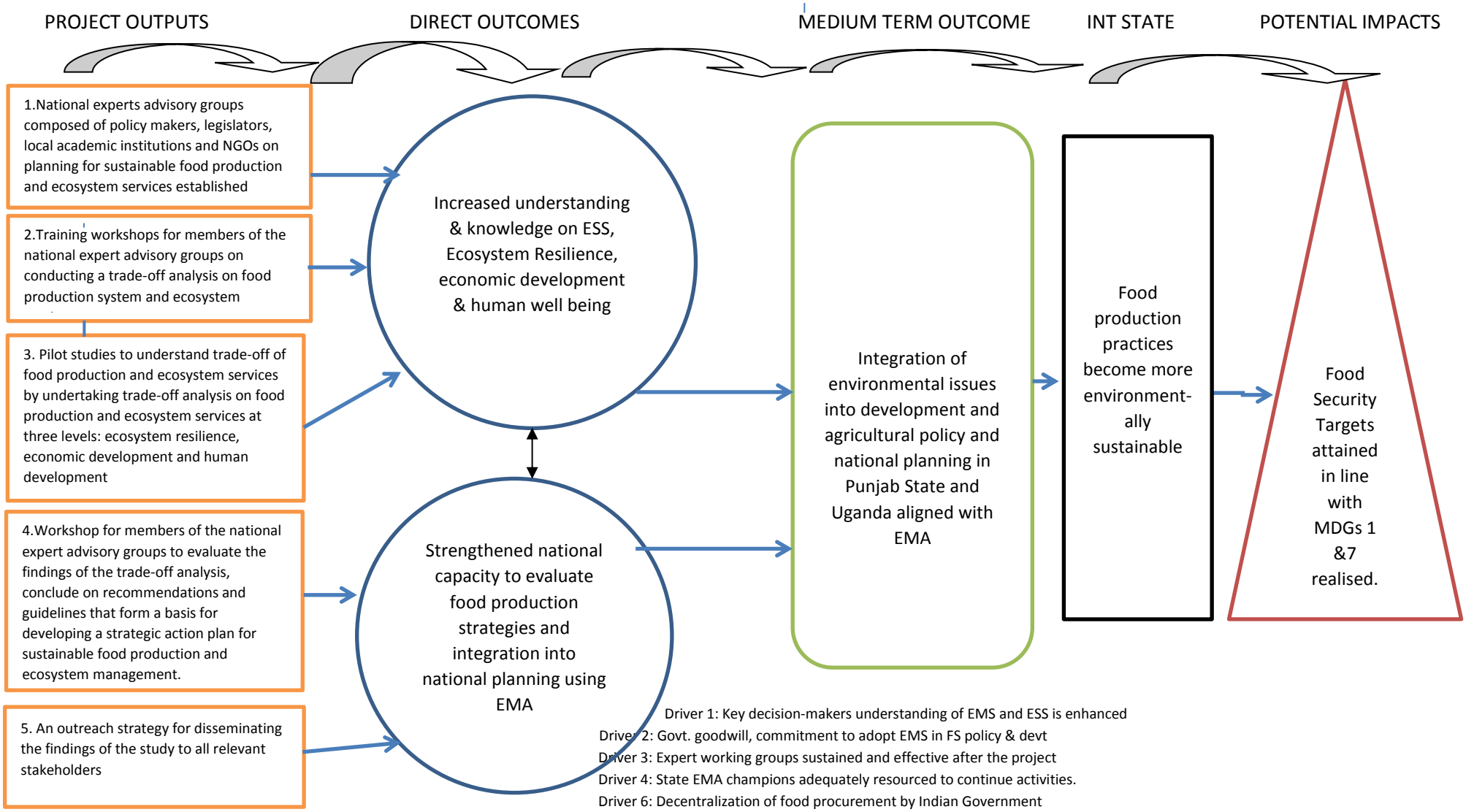
43. As depicted in the figure 3, medium-term outcome is expected to eventually contribute to the achievement of Millennium Development Goals (MDGs) 1 and 7 (in terms of increased food security), which are identified as the potential impacts of the project. Prerequisite and intermediate state for the potential impacts in this case would be the change in food production practices to be more environmentally sustainable.

44. The key driver of desired changes at each stage of the ToC is the government goodwill and commitment to adopt EMA strategies into food policy decision making and therefore selecting the appropriate officials to attend the training, providing then with adequate time and resources to apply their learning to policy decisions. Other change drivers as mentioned in the ToC diagram include key decision-makers understanding of EMS enhanced so that they can adopt learning from the pilot studies effectively and eventually integrate them into their work and into policy. That expert working groups (EAG) are sustained and effective after the project as effective agents of change in adoption of EMAs for food policy development; that state EMA champions are adequately resourced to continue activities including pilot studies on other geological areas in order to promote understanding of ESS and EMA and ecological impacts of food production; finally that decentralization of food procurement by Indian Government is fostered to include other 'non- market' food crops apart from grain as an incentive to farmers to discourage mono-cropping with negative impacts on ESS and biodiversity.

45. The key assumptions for achieving changes at different stages of the result path are (a) continued government stability in Uganda and India (b) Governments' will to commit to increase their food production by 50% by 2030 as advised by the UNSG; (c) Each target country will adhere to internationally ratified agreements on the environment; and (d) Government food purchasing strategies will be devolved to support crop rotation with non-market driven crops to discourage harmful mono-cropping practices of market driven crops that negatively impact on ESS provision and biodiversity. These assumptions are relevant especially for promoting achievement of project outputs 4 and 5 and influencing change at the higher level especially direct outcome 2.

46. As an important Project Design factor and assumption, the evaluation identifies the importance of engaging implementing partner organizations in each country to ensure smooth coordination of the project, leading to increased opportunity to achieve desired results (key assumption e in the TOC diagram).

Figure 3: Reconstructed Theory of Change (TOC) – Outputs to Impact Analysis showing impact pathways



Driver 1: Key decision-makers understanding of EMS and ESS is enhanced
Driver 2: Govt. goodwill, commitment to adopt EMS in FS policy & devt
Driver 3: Expert working groups sustained and effective after the project
Driver 4: State EMA champions adequately resourced to continue activities.
Driver 6: Decentralization of food procurement by Indian Government

Key assumptions on all levels: a) Continued government stability (Uganda and Punjab); b) Commitment to increase food production (by 50% by 2030) as advised by the UNSG; c) Adherence by each country to internationally signed/ratified agreements on the environment; d) Governments commit to support farmers to grow non market driven to discourage harmful mono-cropping of market driven crops; e) UNEP implementing partners will help to improve coordination of activities and promote achievement of results; f) Adequate resources mobilized to support the dissemination strategy. (**Note: INT STATE refers to intermediate state respectively)*

3.0 EVALUATION FINDINGS

3.1 Strategic relevance

3.1.1 Alignment with UNEP's strategy, policies and mandate

47. UNEP has implemented various related initiatives in food security including the preparation of the Rapid Response Assessment Report on the world food crisis, in collaboration with UNDP and other local scientific institutions with main activities in this area. This project built upon lessons and recommendations emerging from the Millennium Ecosystem Assessment (MA) report, "Ecosystems and Human Well-being: Policy Responses", that outlined implicating evidence of the existence of fundamental trade-offs between the need to increase food production and the need to sustain ecosystems in the long run to support food production. In response to the MA report, the UN Secretary General recently announced that there is a need for global food production to increase by 50% by 2030 to meet increasing demand; UN agencies were requested to assess whether these increases may be part of a longer term arising problem. Representing the consensus view of the UN system, including the Bretton Woods institutions and other relevant international organizations, the Comprehensive Framework for Action (CFA) on how to respond to the global food crisis in a coherent and coordinated manner was developed.

48. UNEP's Capacity Building in National Planning for Food Security project therefore seeks to address the two-pronged concerns of a) promoting food security whilst b) ensuring sustainable ecosystem services. By strengthening the knowledge and capacities of decision and policy makers at national and local level, as well as scientists, small scale farmers and others to identify trade-offs between food production systems and ecosystems degradation, the project hopes to contribute towards promoting food security through adoption of ES and EM approaches to development.

49. Lessons learned from UNEP's Medium Term Strategy (MTS) 2014-2017 indicate that it is critical for Expected Accomplishments (EAs) that UNEP aims to achieve through its MTS and associated Programme of Work (PoW) are directly *attributable* to UNEP's work. This entails that Expected Accomplishments are realistic in terms of UNEP's level of ambition, and that the indicators to measure achievement against Expected Accomplishments allow for attribution to UNEP.[45] By clearly articulating the project outputs, outcomes and impacts as well as any intermediate stages required to achieve these results the project aligns itself to the current MTS. The project is relevant to the UNEP MTS 2010-2013: Ecosystem Management and Environmental Governance focus areas, specifically EA 3b: Countries and regions have the capacity to utilize and apply ecosystem-management tools.[46] The project

[45] UNEP MTS 2014-2017

[46] UNEP MTS 2010-2013 http://www.unep.org/PDF/FinalMTSGCSS-X-8.pdf

contributes to this EA through its outputs as expressed in the logical framework and above under implementation arrangements.

3.1.2 Alignment with the Bali Strategic Plan (BSP)[47]

50. The terminal evaluation confirmed that the Project is well aligned to the objectives of the Bali Strategic Plan. These are stated as follows: to: i) strengthen capacity of governments of developing countries as well as with countries with economies in transition at all levels. ii) help governments to implement goals set by the Governing Council/ Global Ministerial Environment Forum in parallel in response by UNEP to requests by governments for targeted capacity building within the mandate of UNEP; iii) developing national research monitoring and assessment capacity, establishing infrastructure for scientific development and environmental management in order to ensure sustainability of capacity building efforts.[48]

3.1.3 Gender balance

51. The project document (PRODOC) has identified women in rural areas as most vulnerable to food shortages. The PRODOC notes the need to understand the distributive impacts of policy decisions to increase food production as paramount. This includes the social dynamics of gender and vulnerability in ensuring access to food. Small-holders and specifically women in rural areas are of particular relevance in ensuring food security but they are also the most vulnerable to food shortages

52. By undertaking the trade-off analysis studies focused on changing national policy on food security, this Project design taking into consideration gender equity concerns would have been able to differentiate food security impacts on women and men, therein addressing gender concerns with respect to relevant national policies in target countries.

3.1.4 Human-Rights Based Approach (HRBA)[49]

53. The United Nations is founded on the principles of peace, justice, freedom and human rights. In the UN Programme for Reform that was launched in 1997, the Secretary-General called on all entities of the UN system to mainstream human rights into their various activities and programmes within the framework of their respective mandates. 64. The 2012 United Nations Conference on Sustainable Development (also known as Rio+20) had as its two themes: (a) a green economy in the context of sustainable development and poverty eradication; and (b) the institutional framework for sustainable development. The "green

[47] http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

[48] UNEP 23rd Session of the Governing Council Report , Global Monitoring Environment Forum, Nairobi (21-25 February 2005)

[49] The Human Rights Based Approach: Towards a Common Understanding. (http://hrbaportal.org/the-human-rights-based-approach-to-development-cooperation-towards-a-common-understanding-among-un-agencies)

economy" as an economic system "recognizes the properties of healthy ecosystems as the backbone of economic and social well-being and as a precondition for poverty reduction." The report recognizes that humankind is a part of a global ecosystem wherein the aims of human rights and environmental protection within the parameters of sustainable development ultimately seek to achieve the highest quality of life for humanity sustainable within existing natural conditions[50]

54. The ultimate objectives of the Project (which was designed prior to the Rio+20 conference), are based on MDGs 1 and 7 that focused on poverty eradication and environment (The MDGs have now been superseded by the Sustainable Development Goals however). During the project design period, the development cooperation directed towards the achievement of the Millennium Development Goals and the Millennium Declaration ensured that human rights standards and principles guided both the Common Country Assessment and the UN Development Assistance Framework.

55. The HRBA did not appear to be applied by the Project in activity implementation, for example through systematic reporting using gender disaggregated data. This is likely to be because it was designed in 2011, when UNEP did not provide clear guidance for incorporating HRBA into project design.[51] A project designed with activities addressing HRBA issues would have been able to demonstrate how development cooperation focused on capacity building of national level stakeholders and how it contributed to improving the capacities of duty-bearers (national level stakeholders) to meet their obligations to its rights holders (citizens). This would have helped the Project to more effectively and deliberately address HRBA issues from the perspective of 'rights-holders' (citizens) and 'duty bearers' (governments).

3.1.5 South-South Cooperation[52]

56. The Bali Strategic Plan (BSP) denotes South-South Cooperation (SSC) as one of the primary mechanisms for implementation of capacity building and technology support objectives of UNEP. Although not explicitly mentioned in the PRODOC, the UNEP South-South Cooperation Exchange Mechanism - an initiative aimed at strengthening exchange and collaboration between developing countries in the fields of environment and sustainable development - was deliberately implemented by the Project. Initially the PRODOC identified India and Cuba as target countries for participation in this project. The subsequent withdrawal of Cuba and its replacement with Uganda demonstrates the Project's commitment to promoting South to South cooperation, learning and information exchange through its interventions. This is because the potential for information exchange was high as Uganda practices extensification agriculture using more land for food production while cutting down forests, whereas India

[50] http://www.unep.org/environmentalgovernance/Portals/8/publications/JointReport_OHCHR_HRE.pdf

[51] During the review of the final report, the EO moved this finding from the conclusions section under the HRBA related section in the report.

[52] UNEP South to South Cooperation: http://www.unep.org/south-south-cooperation/case/

practices intensification agriculture with overuse of pesticides, fertilizers and water resources Both with ESS and biodiversity impacts.

57. SSC strategies were adopted by the project where members of national expert's advisory groups in India: (PAU, IIFM, GIST, INSEE) and Uganda: (ICRAF, NPA) were subcontracted by UNEP through small-scale financing agreements (SSFAs) to conduct and/or support pilot studies (including field work) to analyze and understand trade-offs of food production and ecosystem services, at three levels: ecosystem resilience, economic development and human development. The pilot, case studies which focused on Punjab State, India and Hoima District, Uganda, involved UN agencies: UNEP and UNDP, NGOs and other participating organizations which provided a basis for sustainable food production and strategies using an ecosystem management approach.

58. A project website was launched with intranet functions to allow information exchange in target countries on the work of UNEP and its partners. The NPA, ICRAF, UNEP and NEMA developed flyers and publication[53] following an inception workshop in September 2013. SSC mechanisms between target countries was however limited in terms of scope and depth. Key note speakers were invited to UNEP HQ to share their expertise on tradeoffs between food production and ESS. This in an effort to establish close collaboration modalities through the UNEP SSC Mechanism.

59. This is well aligned with UNEP's SSC case database approach that promotes sharing of case studies and stories from around the world on the South-South initiatives specifically related to the environment and sustainable development. In the case of this project, partners submitting these case studies included stakeholders in each country who are representative of UNEP, UNDP, NGOs, research and academic institutions.

3.1.6 Relevance to global, regional and national environmental issues and needs

60. On a global regional and local scale, there exist difficulties in meeting national demands for food, within a context of agricultural industrialization. This together with limited knowledge on food production practice impacts on ESS and biodiversity reduces local and national level capacities to analyze the distributive impacts of food security strategies. These factors converge to create low capacity of national governments and regions to identify global environmental impacts including ecosystem degradation of different food production systems. Project stakeholders in Uganda and India generally concurred with this view and further noted the high momentum and increasing demand for capacity building support in the field of food security due to its relevance at the national level. They cited the need for more studies focusing on empirical evidence of economic impacts of ESS trade-offs in food production so as to scale up the project benefits to other sectors in the regions.

The rating for overall strategic relevance is Highly Satisfactory

[53] Publication titled: "Analysis of Trade-Offs between Food Production and Ecosystem Services: Waki and Wambabaya Watershed in the Albertine Rift, Uganda

3.2 Achievement of outputs

3.2.1 Component 1: Understanding and knowledge

61. The aim of this project component was to address project outcome 1: "Increased Understanding and knowledge among national stakeholders of the trade-offs between food production and ecosystem services by focusing on three aspects: ecosystem resilience, economic development and human well-being".

Output 1. National experts advisory groups composed of policy makers, legislators, local academic institutions and NGOs on planning for sustainable food production and ecosystem services established

62. In line with the intended project outputs National Expert Advisory Groups (EAGs) were established in India and Uganda (one EAG per country). With the facilitation of the NPA and NEMA in Uganda, an EAG was formed, with over 50 members. EAG members comprised of national and regional level stakeholders (NPA, NEMA, government ministries and departments on water resources, environment and national resources, wetland management, fisheries, trade and tourism, agriculture, nutrition, educational institutions, Inter University Council, and the farmer federation) as well as INGOs and UN agencies (e.g. UNEP, UNDP Uganda)[54]. In India, an EAG of 30 national experts was established with the help of local institutions: GIST, PAU and IIFM.

63. Project partners and stakeholders in Uganda and India were satisfied with the formation of these EAGs, but noted that it was not easy to establish modalities for close collaboration within and between them. Challenges of formulating and maintaining these groups included the high turnover of staff in Ministries, Departments and Agencies (MDAs) which made it difficult and often impossible for the project partner institutions to follow up with them once they left office. The MDA work culture where each works in silos, vertically, each with their own processes, structures and bureaucratic processes hindered smooth communications between them on the selection of invitees to EAG meetings and ensuring attendance by relevant officials in decision-making roles.

Output 2. Training workshops for members of the national expert advisory groups on conducting a trade-off analysis on food production system and ecosystem.

64. 30 participants in India and 50 participants in Uganda attended the training workshops. Three workshops were conducted in India whilst the evaluation could so far confirm two workshops for stakeholders in Uganda (log-frame indicator target: one per country). Due to the location of EAG meetings close to their places of work, MDA officials' time for attendance at planned workshops was limited. They were often interrupted by office demands, which did not allow their full participation. According to partners this compromised the EAG members' ability to absorb and understand the relatively new and complex EMA approaches discussed in the trainings.

[54] List EAG Uganda 17-01-14

65. In India the planned duration of these workshops was reduced from two-days to only one day, due to unavailability of national level stakeholders. Lack of clarity in coordination between partners led to duplication of roles due to conflicting work and study approaches and figures. There were also conflicting expectations regarding planned project activities such as the number of planned training workshops

Output 3. Pilot studies to understand trade-off of food production and ecosystem services by undertaking trade-off analysis on food production and ecosystem services at three levels: ecosystem resilience and economic development and human development.

66. A pilot study on trade-off scenarios between food production and ESS was conducted by ICRAF in Uganda, demonstrating production levels of maize against a site watershed - River Waki and River Wambabya in the Albertine Rift. Similarly, India based partners; GIST and IIFM were involved in data collection and analysis of ESS provisioning and regulating services against historical data on fertilizer, agricultural productivity, the socio-economic context, connecting data to farmer incomes, and health. Selected representative farms in Punjab state were used to comparing intensified farming practices to organic farming and demonstrating the status and tradeoffs in terms of food yields and biodiversity. Pilot studies in India were structured to extrapolate trends data and information using scenarios. These were expected to inform policy recommendations.

67. Accurate conclusions and recommendations from these studies were however limited by data gaps and the lack of a comprehensive framework for ecosystem analysis; which could lead to erroneous conclusions, guidelines and recommendations on resource depletion, irrespective of the level and intensity of damage to the ecosystem.[55] However, the pilot studies were an important first step in supporting evidence-based decision making. The available data provided useful indications and which gaps need to be addressed to refine the estimates in both countries.

68. According to interview findings with India based partners, difficulties with project activity coordination were experienced by some key partner institutions. This lead to duplication of efforts and contributed to implementation inefficiencies. For example: planning for EAG meetings and completion of the pilot studies as planned in India contrary to the planned output indicators contained in the logframe (technical reports of completed pilot studies one per country). This is partly due to partners' prior inexperience collaborating with each which took time to understand and change where necessary, also due to severe insufficiency of historical data.

3.2.2 Component 2: Capacity building

69. The aim of this project component was to address the project outcome 2: "Improved capacity at the national level to evaluate a sustainable food production strategy and its integration into national planning using an ecosystem management approach". Capacity building efforts

[55] Document: Comments on Module 3

of the project focused on national expert advisory groups' capacity to a) evaluate findings from analysis of ESS trade-offs; b) draw conclusions from recommendations and c) develop an outreach strategy for disseminating study findings. This second component was expected to increase national level capacities to evaluate sustainable food production strategies, for integration into national planning using an Ecosystem Management Approach (EMA).

Output 4. Workshop for members of the national expert advisory groups to evaluate the findings of the trade-off analysis, conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management

70. UNEP partners hold participatory workshops in India and Uganda. In the case of Uganda, two workshops were held with EAG members to share pilot study findings with 51 EAG members. Partners in India held workshops with EAG members including farmers in different regions, to discuss and to record information for use in ESS trade-off analysis. IIFM, a second partner on the UNEP Project, experienced constraints with scientific assessment of ESS tradeoffs and could not also complete the data analysis as per their agreement on the first and second deliverables, due to the unavailability of long term historical time-series data beyond 60 years. However GIST that coordinated the activities in India on behalf of the project held three, one-day workshops with 30 participants in attendance to share preliminary findings of pilot studies

71. Findings from pilot studies were also disseminated through publications on relevant tradeoff analysis and integrated into key national planning and policy development strategies in Uganda. However this has not been achieved successfully in India due to government bureaucracy and the lack of rigorous scientific evidence and data required achieving buy-in on policy change at national level

72. ICRAF which focused on developing three food security scenarios, with food production policies on one side and actual practices on the other, examined the accuracy of alignment with food policy objectives as well as non-coherence or disconnect. A first discovery was that Uganda's agricultural policies had little to do with environment policies. The studies used a modelling approach and set up various scenarios demonstrating what would result if Uganda continued under this framework, using a proxy to show production levels of maize against a site watershed- River Waki and River Wambabya in the Albertine Rift in Hoima District, Uganda's hotspot for diversity conservation[56] . Using the past to learn about the future, ICRAF examined data from 1990 to 2014 on variables such as land cover change under Business As Usual (BAU) production practices, to project changes in 2038 and to 2062 - population change projected at 1.8 times the current levels. ICRAF was able to demonstrate how much more the land will need to expand and the loss to the environment in terms of ESS and biodiversity, classified in terms of carbon, hydrological services: sedimentation and water flows. Projecting

[56] Analysis of Trade-offs Between Food Production and Ecosystem Services "Project publication prepared by UNEP and its partners in Uganda: World Agroforestry Centre, National Planning Authority, and National Environment Management Agency-Uganda. (2014)

the Business as Usual (BAU) scenario and demonstrating the dangers of leaving things as they are, ICRAF showed the effort it would take to achieve the targets set in existing food production policies at 2.75 tons of maize per Hectare (HA), and how the same amount of food can be produced on the same piece of land with savings to ESS. In the third scenario, ICRAF demonstrated the value of saving to the ecosystems and the ability of the land to produce adequate maize to feed the population at this level. ICRAF however lamented the unavailability of data on ESS in Uganda, on for example, river flows from small rivers which was not available at the Ministry of Water as it only focuses on large rivers. Information was therefore sought from Mbarara University of Science and Technology which provided much needed information on the Hoima river flows.

Output 5. An outreach strategy for disseminating the findings of the study to all relevant stakeholders

73. According to stakeholders in Uganda and India however, the Project missed an important opportunity to develop an effective outreach strategy for disseminating findings from pilot studies as planned. This limited the number of policy dialogues and outreach events on integration in both target countries (output indicators), reducing opportunities for information exchange and knowledge sharing on three levels:

    1. By local level stakeholders at district level who are responsible for preparing the State of Environment Report. This is due to the project's focus on national level stakeholders

    2. Focusing India's long term experience with negative impacts of intensive agricultural practice. In the same vein, with Uganda's harmful food production practices with extensification agriculture resulting in decimation of forests for expansion of lands for farming. Project participants in India and Uganda could have benefited more from information sharing and exchange through the South-South Cooperation Mechanism of UNEP. Project stakeholders and partners alike felt that the trade-offs and ecosystem related issues would have been better communicated to Ugandan stakeholders especially as India had a lot to share.

    3. The vast archive of historical data dating back over 100 years and stored by educational institutions such as PAU would have been useful for Ugandan stakeholders to see for themselves. This would have helped them get a sense of the database, its contents and any gaps so as to help them create or update their data repository in Uganda which is much less developed.

The rating for the achievement of outputs is Satisfactory

3.3 Effectiveness: Attainment of outcomes and planned results

3.3.1 Achievement of direct outcomes as defined in the reconstructed ToC

74. The Project expected to achieve two direct outcomes: i) Increased understanding and knowledge on ESS, Ecosystem Resilience, economic development and human well-being and, ii) Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA. Achievement of these outcomes was expected to lead to the achievement of medium-term outcome: Integration of environmental issues into development and agricultural policy and national planning in Punjab State and Uganda aligned with EMA and the impact of attainment of food security targets in line with MDG 1 and 7 as described in the reconstructed ToC diagram above. The first step of assessing the project's effectiveness is based on the extent to which the two direct outcomes were successfully achieved with project stakeholders in India and Uganda.

Direct Outcome 1: Increased understanding and knowledge on ESS, economic development and human wellbeing

75. In India, pilot studies showing various trade-off scenarios between food production and ESS using EMA were well documented in a documentary film aimed at raising awareness of stakeholders on the issues. They were also well shared using modalities for close collaboration such as the project website and intranet.[57] However, it was not immediately clear to what extent the project outcome was successfully realized with EAG members through these outputs, especially as project partners cited challenges with internal coordination due to inexperience working together on previous assignments resulting in conflicting approaches and data findings.

76. The project potentially contributed to capacity building outcomes with farmers in Punjab, India through 50 capacity building workshops with over 2000 farmers. These were focused on raising farmers' awareness about the trade-offs and synergies between food production and environment and to train them on possible solutions.[58]

77. In Uganda, however, despite the late start of the project due to the withdrawal of Cuba, there is evidence that the pilot studies conducted by ICRAF using scenarios with future projections achieved positive results on this outcome. This is evidenced in the adoption of learning from these studies by EAG members through integration of recommendations into future national development strategies, policies and plans using EMAs (these plans and policies are described under outcome 2 below).

Direct Outcome 2: Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA

[57] Annual Development Account Progress Report (UNEP, June-December 2012)

[58] A limitation of the evaluation was the lack of participation in the terminal evaluation by the PAU team which would have helped elaborating the contribution of these workshops to the outcome.

78. In India, however, beyond awareness and capacity building and development of trainings and other materials, it was difficult to influence national stakeholders (EAG members) to adopt and integrate pilot study findings into government policy. Project partners felt that contractually, the outcome was over-ambitious within the project timeframe due to the government bureaucracy, busy and unavailable government officials, high government staff turnover and the project's focus on state level officials rather than on district level stakeholders who are more knowledgeable about the conditions of farmers in Punjab State. Project partners suggested that a second, follow up project with specific focus on public policy revision was needed in order to achieve policy impact using EMAs.

79. Through the collaboration mechanism created by the Project, however, key partners' own capacities to evaluate food production strategies and to potentially influence their integration into national planning using EMAs was strengthened. Therefore, despite the difficulties cited with achieving the first outcome in India, momentum has been built and key stakeholders' awareness and demand for more information was raised. More accurate, empirical, scientific data is required in India, to support efforts by media, scientists, NGOs and the national government to inform and address government policy on food production strategies going forward.

80. ICRAF Uganda successfully achieved enhanced national stakeholder capacities to evaluate findings from analysis of ESS trade-offs and drawing conclusions from recommendations through the workshops which were held one on information dissemination and the final workshop in line with the project's outputs. The important championing role of NPA in Uganda was clearly demonstrated despite the project's late start and reduced implementation timeframe, findings highlighted from ICRAF's pilot studies in Hoima, Western Uganda are being incorporated into revisions of the Second National Development Plan (NDP 2) with ecological intensification focus and budget with potential impact. Interviews with key informants in cross examined against project publications reveal that discussions are currently underway in Uganda to integrate EMA approaches to food production policy into various national policies and reports. These policies and reports include the agricultural sector's 10 -year "Development Strategy and Investment Plan (DSIP)" which expires in 2015 with influence of budgetary allocation to the Ministry; the Agriculture Sector Investment and Development Plan 2010/11-2014/15, an intensification plan to scale up use of improved crop production technology; the Food and Nutrition Policy (FNP), 2003; 2005 which focuses on food security, improved nutrition and increased incomes. Plans are also to integrate lessons on ecological intensification will also be integrated into the Ministry of Water and Environment's Climate Change Unit's Sustainable Lands Report. Environment being a cross cutting issue in Uganda is highly visible in sectors such as infrastructure, water and environment, agriculture, health, tourism, oil and gas and minerals.

The rating for achievement of direct outcomes is Satisfactory

3.3.2 Likelihood of impact using the Review of Outcomes to Impact (ROtI) approach

81. The ROtI approach is used to assess the likelihood of impact by building upon the concepts of Theory of Change (Section 2.2.8)). The ROtI approach requires ratings to be determined for the outcomes achieved by the project and the progress made towards the 'intermediate states' at the time of the evaluation. The rating system is presented in Table 4 below and the assessment of the project's progress towards achieving its intended impacts is presented in Table 5.

Table 4: Rating scale for outcomes and progress towards intermediate states

Outcome Rating	Rating on progress toward Intermediate States
C The project's intended outcomes were delivered, but were not designed to feed into a continuing process after project funding	**B: The measures designed to move towards intermediate states have started and have produced results, which however give no indication that they can progress towards the intended long term impact.**

Table 5: Overall likelihood of achieving impact

Outputs	Direct Outcomes	Rating (D – A)	Medium-term Outcomes	Rating (D – A)	Intermediate state	Rating (D – A)	Potential Impact (GEBs[59])	Overall
1.National experts advisory groups established 2.Training workshops on conducting a trade-off analysis on food production system and ecosystem 3. Pilot studies to understand trade-off of food production and ecosystem services by undertaking trade-off analysis on food production and ecosystem services at three levels: ecosystem resilience, economic development and human development 4.Workshop to evaluate the findings of the trade-off analysis, conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management 5 An outreach strategy for disseminating the findings of the study to all relevant stakeholders	i) Increased understanding an knowledge about ESS, Ecosystem Resilience, economic development & human well being And ii) Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA	B	Integration of environmental issues into development and agricultural policy and national planning in Punjab State and Uganda aligned with EMA	C	Food production practices become more environment-ally sustainable	C	Food Security Targets attained in line with MDGs 1 &7 realised.	BC
	Justification for rating:		Justification for rating:		Justification for rating:		Justification for rating:	

[59] GEBs, Global Environment Benefits

	The project's intended outcomes were achieved, and were designed to feed into a continuing process, but with no prior allocation of responsibilities after project funding		**The measures designed to move towards intermediate states have produced results. The TE could not however confirm whether long term intended impacts were achieved.**		**Due to the short project duration, it was not possible to measure changing food production impacts as a result of the project.**		**Project has not achieved documented changes in environmental status during the project's lifetime.**	

82. The project's direct outcomes were partially achieved in India and Uganda, with the latter showing more evidence of these intermediate results, despite start-up delays and the shorter implementation period (2 years compared to 3 for India). However, the partial achievement of outcomes was partly due to factors which were beyond the control of the Project and its key partner organizations. The Project made a notable start in addressing a new and complex area of study with constraints of historical time series data gaps and the absence of a framework for conducting trade-off analysis of food production and ESS using EMAs. A key contribution of this project is the softer, non-tangible, behavioural and attitudinal factors. The new partnerships developed by UNEP as a result of the Project's well thought strategies of engaging various institutions in target countries, was instrumental in creating synergies and facilitating networking with modalities for collaboration that have ability to influence future strategies by these organizations towards positive food policy change. This has potential to influence the realization of desired change as concerns government attitudes towards, and interest in, policy development on food production using EMAs. **Rating of progress towards Direct Outcomes is 'B'.**

83. The demonstrated ownership of this Project by the Government of Uganda through integration of EMA into national food production policies and strategies with budgetary influence; the momentum interest and demand for rigorous scientific data on trade-off analysis studies by key stakeholders including media activists and scientists and the increasing demands state and non-state actors (NSAs) for more capacity building and training may lead to potential support for medium-term outcomes. **Rating of progress towards the medium-term outcomes is rated 'C'.**

84. The project's potential of achieving the intermediate states necessary for realizing desired impacts on the MDGs 1 and 7 (poverty reeducation and environmental sustainability) was low. Food production practices can only become more environmentally sustainable in India and Uganda with integration of EMA and ESS approaches. Although there are early signs of this outcome in Uganda. In the case of India, however this result was compromised by the lack of time series data needed for completing the pilot studies. Without completed pilot studies, capacity building of national level stakeholders to integrate EMA approaches and evaluate food policy could not be realized by the project. **Rating of progress towards the Intermediate States is rated 'C'.**

85. The aggregate rating on potential for achieving impact is 'BC'. This takes into consideration the momentum created so far and the high level of cooperation and engagement by most key stakeholders in Uganda. The quick response by the Ugandan government on adopting and integrating lessons learned from pilot studies of this project into key national policies and strategies is revealing of the relevance of this project to the national food production and environment goals. The environmental and ESS challenges facing Punjab State in India and the current practice where food purchase by the government is already decentralized through the government's own procurement system: (i.e. the Public Distribution System (PDS)) demonstrates that many other states are now contributing to the food basket. According to stakeholders interviewed, food purchase was centralized previously in India and

dominated by Punjab with over 90% of food procurement by the government. Currently, key experts estimate that Punjab is only contributing between 50-60% to the PDS.[60] India's non-integration of EMA into national food production policy following project interventions lowered the project's achievements overall. These factors when evaluated together resulted in a final rating of **'BC'**. **The Project, with an aggregated rating of BC can therefore be rated as 'Moderately Satisfactory' to achieve the expected Impact**.

The Rating for likelihood of impact is Moderately Satisfactory

3.3.3 Achievement of the formal project objectives as presented in the Project Document

86. The goal of the Capacity Building in National Planning for Food Security project was to '*integrate environmental issues into development and agricultural policy'* and the finding is that despite the challenges experienced by the project, it showed potential to achieved planned impacts in *national planning.* The primary objective being to strengthen national level capacity to identify environmental impacts and ecosystem degradation, related to food production systems in the target countries: India and Uganda. The challenges of initial start-up delays resulted in budgetary and time constraints. Severe gaps in historical time series data in India and the absence of a framework for accurately and empirically measuring the trade-offs between food security and EES in the two countries posed a challenge to collaboration with national level stakeholders. Government bureaucracy further challenged project coordination efforts amongst project partners themselves. However despite these difficulties, progress towards achievement of the project goal and objectives showed potential to achieve planned outcomes and to contribute to planned impacts.

The rating for the achievement of the formal project objectives is Moderately Satisfactory.

3.4 Sustainability

87. Sustainability is understood as the probability of continued long-term project-derived results and impacts after the project funding and assistance has ended. The time frame initially planned for the Project was two and a half years. This was later extended by nine months due to the withdrawal of Cuba and the need for more time to enable the replacement country-Uganda to achieve its objectives. The modest partner budgets were valued at between 15,000 USD and 154,638 USD as provided for in the legal instruments (SSFAs) between UNEP and these organizations. Amendments were made with requests for time extensions for completing project activities. These include conducting biophysical quantification on tradeoffs and economic analysis that is critical for influencing food policy change. Also for conducting outreach and dissemination activities or for rescheduling payments to make funds available for project implementation. This within the context of a new and complex area of research not easily accessible in scientific journals, point to sustainability concerns.

[60] Key Informant Expert in India

88. Despite recent ongoing efforts to integrate EMA into food security policies with potential funding by the national government, (e.g. Uganda), it is highly doubtful that the project benefits will be self-sustaining in the short run without continued financial support by UNEP and its partners and significant scaling up of the financial support aspect in particular. The initial momentum generated by the Project and evidenced in Uganda and India is at risk of fading away in time and the efforts by UNEP with this very relevant and valued project lost. Additional support by UNEP is required that is focused on building capacity at the national and local levels, with greater focus on improving the quality and quantity of data and institutional capacities to analyze trade-offs between food production and ESS in various geological zones for comparison and for accurate determination of the types of food security policy changes needed

The rating for overall project sustainability is Moderately Unlikely

3.4.1 Socio-political sustainability

89. The very purpose of the EAGs with representation by state and non-state actors is to foster political will and create a non-partisan forum for discussion and policy formulation to occur. The larger and more active the groups, therefore, the greater the political will that would be behind any proposed policy or legislation. With the EAG platforms already formed by the Project in each target country and with their demands for more knowledge, understanding and enhanced capacities, the Project is highly likely to benefit from their inputs into the national policy debate. The goodwill demonstrated by the Ugandan government and its flexibility with adopting recommendations from pilot studies into national policy plans complete with budget lines is encouraging and indicative of potential long- term sustainability with enhanced capacity. Similarly, the demand for more scientifically rigorous data in India coupled with the government's decentralization of food procurement through the PDS system will increase the demand for food security policies that are informed by the findings from trade- off analysis on food production using EMAs in Punjab State and other food producing areas.

The rating for socio-political sustainability is Likely.

3.4.2 Sustainability of financial resources

90. A year after the project ended; there is however, little evidence of continued support to the EAGs and partner organizations established by the Project in either country. Collaboration mechanisms by the Project with EAGs followed informal structures unlike the legally binding instruments defining the engagement between UNEP and its key implementation partners during the project funding period. With the large amount of work still needed to enhance the quality of pilot studies undertaken support so far in each country and to refocus the project approach to engage both local and national level actors more effectively with clearly defined roles for key partners, the evidence seems to reveal unsustainability of financial resources for the project, without continued future by UNEP and its key funding partners through a follow-up project. There is no evidence of other resource commitments to sustain project results.

The rating for the financial sustainability is Unlikely.

3.4.3 Sustainability of Institutional Frameworks

91. This section assesses the likelihood that institutional and government structures will allow for the project outcomes/benefits to be sustained. The institutional framework enabled project outcomes and benefits to be sustained during the life of the project, as evidenced by the extent to which planned outcomes were achieved. It is clear that the continued achievement of high level results is dependent on the support that was provided through government in the case of Uganda, during the life of the project. Enabling government's institutional support was however not evidenced in India. UNEP's coordination role with implementing partners was essential to the achievement of outcomes and without it the number, quality and scope of planned project activities and outputs leading to results may have been compromised.

The rating for the institutional sustainability is Moderately Likely.

3.4.4 Environmental sustainability

92. Environmental sustainability is expressed under MDG 7. Using the logic expressed in Figure 3, it is clear that changing food production practices and policy through application of EMAs to ESS and biodiversity has potential to contribute to long-term environmental sustainability. The findings indicate that the potential is high in Uganda through the adoption at national level of EMAs as direct outputs and outcomes from the Project. However this cannot be assumed in the case of India due to the lack of national integration of EMAs into national food security plans based on the project's outputs so far.

The rating for the environmental sustainability element is Moderately Likely.

3.4.5 Catalytic role and replication

Catalyzed behavioral changes

93. UNEP and its partners jointly collaborated on project activities and outputs through formal structures encapsulated in legally binding instruments. This mechanism catalyzed behavioral changes by partners in India who had little or no prior experience of collaborating together on UNEP funded projects regarding tradeoffs between good production and ESS. The catalytic effect on behavior change on the part of national stakeholders in Uganda led to incorporation of EMA approaches into national food security policy, plans and strategies rather quickly. This was possible as the project's timing coincided with the end of the funding period for some national development plans.

94. The project has potential to influence behavior change amongst other government ministries such as the Ministry of Water Resources in Uganda that do not traditionally collect data on small rivers as stated earlier. This may change going forward based on the recommendations emerging from pilot studies and enhanced capacities of national stakeholders to evaluate these findings.

3.4.6 Incentives

95. A key incentive for upscaling and replicating project outcomes was the funding provided through SSFAs with key partners to collaborate jointly with UNEP on the Project. Partners appreciated this support which they said provided much needed resources for conducting research on tradeoffs between food production and ESS in their countries. The project's focus on influencing national food security policy and capacity through the studies and other outputs was a key incentive for project partners who felt that their work had value and potential to influence positive policy change at the highest level. Thus the efforts by the India based partners to initiate collection of time series data on their own through survey research. This effort according to partners interviewed was however not completed due to inadequate time and funds that were not foreseen.

3.4.7 Institutional changes

96. UNEP's project partners in India had no prior experience of joint collaboration on a single project, while the project partner NPA in Uganda is a coordination ministry with experience working with other national institutions represented in the EAG membership platform. In India challenges for coordination with partners presented opportunities for learning about the differences in approach that may lead to conflicting study findings. Institutional changes take time therefore a lesson learned by this project was the importance of identifying the right lead partner key in each country who has prior experience of collaboration in order to effect change and help to realize impacts within a shorter period as was realized with Ugandan institutions. Institutional changes through uptake of project demonstrated integrated environmental assessment approaches could however not be accurately determined by the terminal evaluation.

3.4.8 Policy changes

97. As discussed above, policy changes have been started in Uganda with integration of EMA approaches in food security strategies of national development plans, based on analysis of trade-offs conducted by ICRAF on the UNEP Project in Western Uganda. Policy change which was the highest level of change planned was however more difficult to achieve in India due to the absence of time series data dating back at least 60-70 years and the need therefore to add a new unforeseen activity i.e. primary data collection at the farm level. The time series data generated by PAU was assumed to be adequate for use with pilot studies, however it only dated back 30 years. The approach differed from Uganda which historically does not collect time series data. Therefore the pilot studies relied on developing scenarios and modeling rather than on time series data. The difficulties of working with national level stakeholders coupled with the project design that omitted local level stakeholders at devolved government structures who may have helped to influence changes at that level while moving up the ladder towards national policies was a missed opportunity by stakeholders in India to influence food security policy change at national level.

3.4.9 Catalytic financing

98. UNEP provided catalytic financing valued at between 15,000 to 154,638 USD to partner organizations, through SSFAs. Catalytic financing was provided by UNEP for development of a

project website and an intranet for enhancing internal communication, and also for printing of publications on trade-off analysis to catalyse knowledge and information sharing to a wider audience, on the tradeoffs between food production and ESS in each country. UNEP provided catalytic financing for seminars and workshops budgeted at 148,000 USD and for contributions by independent experts budgeted at 132,000USD. To help catalyse achievement of project outputs against objectives, the project budgeted support at a level of 40,000 USD.[61]

3.4.10 Champions to catalyze change

99. Champions and catalysts of change are not clearly documented nor was the terminal evaluation able to determine this.

3.4.11 Replication

100. The pilot studies undertaken in Uganda focused on methodology and scenarios using the case of Western Uganda. This approach is highly replicable to other ecological zones in Uganda, due to its non-reliance on extensive historical data but rather on future projections. Project partners are keen to replicate these studies to other parts of Uganda due to the benefits evidenced through this approach and to build capacities of national and local stakeholders on the EMA approach to food production. Opportunities for replication of the project in India were limited however due to the difficulties accessing accurate historical data leading to high quality pilot studies. Replication of the project in India is therefore still uncertain. However as with Uganda, stakeholders in India are keen to replicate these studies to other ecological zones which may benefit from government policy change on food security.

The rating for project's catalytic role and replication is Moderately Satisfactory.

3.5 Efficiency

101. Cost and time saving mechanisms were not clearly evidenced from the project documents provided or from the interviews.

102. Efficiencies were however slightly compromised by the withdrawal of Cuba following extensive work carried out by UNEP initially in that country. This resulted in a project amendment extending the programme period by 8 months. Most partners felt that the project was rather rushed making it difficult to close data gaps and to conduct trade-off analysis activities as planned. Several requests for time extensions at no cost were submitted related to the project activities. This seemed to indicate that the project grossly underestimated the amount of time it would take to complete activities within acceptable quality standards.

The rating for efficiency is Moderately Satisfactory.

[61] Annual Progress Report June-Dec 2012- Budget Expenditure Financial Report section

3.6. Factors affecting performance

3.6.1 Preparation and readiness

103. The Project's logical framework was detailed but linear as is the case with this approach. However as development does not normally follow a linear approach the consultant developed a different approach: Theory of Change to redesign the project logic showing the change drivers, intermediate states and impact pathways influencing achievement of higher level results: outcomes, intended and potential impacts. Based on the ToC diagram and evaluation findings on this project so far, the higher level potential impacts of the project: contribution to MDG 1 and 7 seemed to be rather ambitious and unrealistic for this project to accurately determine based on its interventions, the short funding period and its challenges with building capacity and getting buy in from national level stakeholders in the case of India.

104. The selection of Cuba with its closed system of government and its eventual withdrawal from the project seems to indicate that the project was ill prepared for the challenges and potential risks associated with its involvement. Perhaps the ToC model if applied early in the project may have helped to show the drivers and impact pathways more clearly so as to help the project management decide whether or not Cuba was a suitable potential partner. The project's decision to focus on analysis of trade-offs between food production and ESS and capacity building for integration of the EMA approach to food security policy at higher level was bold, timely and innovative. This is due to the fact that EMA is a new approach to food production policy which has focused more on economic rather than ESS and biodiversity impacts. The project however underestimated its preparedness to effectively address challenges with government bureaucracy in India that impacted on the project's ability to achieve its ultimate objectives and goals.

The rating for project preparation and readiness is Moderately Satisfactory

3.6.2 Project implementation and management

105. The Terminal Evaluation determined that Capacity Building in National Planning for Food Security Project was well supported and implemented in a participatory manner with partners. UNEP shared coordination roles with its partners such as ICRAF in Uganda and GIST, PAU and IIFM in India, by presenting its overall concept on capacity building and sustainable food security. Partners such as ICRAF took up the role of conducing actual research, linking with groups coordinated by UNEP directly and providing logical steps on how to work with EAG members in Uganda. Project implementation and management went well as UNEP had dedicated staff that was able to guide stakeholders on this highly technical subject.

The rating for project's performance in implementation and management is Satisfactory.

3.6.3 Stakeholder participation, cooperation and partnerships

106. The project was highly successful in terms of stakeholder participation through EAG meetings with members under output 2 (see figure 3). Local partners identified members of

the EAG in each country as per the planned project output. The successful attendance of 30-51 EAG members at 3 planned workshops in India and Uganda respectively, is indicative of good cooperation ties and partnerships with UNEP's partners in each country. However as this evaluation was conducted nearly one year following the end of the project most EAG contacts were invalid and planned interviews could not take place with them as partners were no longer engaged contractually in the project. This limited the level of detail that could be gathered by the evaluation on factors such as the project's effectiveness. As there was no formal steering committee overseeing the project in both countries, additional information about stakeholder participation, cooperation and partnership was not clearly evidenced.

The rating for project's performance in stakeholder participation, cooperation and partnerships Satisfactory

3.6.4 Communication and public awareness

107. Apart from the EAG trainings and the project website and intranet for internal communication, a documentary was produced by UNEP partners in India on trade-offs between food production and EES for wider dissemination and increased public awareness. Several findings were also shared at EAG workshops. Communication products of Ugandan partners included brochures and a publication jointly produced by all key stakeholders on "Analysis of Trade-Offs between Food Production and Ecosystem Services" This document was available at each of the offices visited and the consultant was swiftly provided with a copy by the NPA.

108. Apart from these products, integration of trade-off analysis approaches to food security in Ugandan national agricultural and environment policies and strategies and national development plans demonstrates achievement of communication and public awareness at the national level by the Project.

109. However some limiting factors included the data gaps in each country and especially in India that limited sharing of findings at national level due to the need to conduct more rigorous studies. Even when findings were shared the reduced duration of the workshops and inadequate participation by national level stakeholders compromised ability to absorb the new information, limiting the level of understanding. The project stakeholders in Uganda in particular however demonstrated general awareness of the issues raised through their efforts to incorporate EMAs into national food security plans as cited in the above section.

The rating for project's performance in ensuring communication and public awareness is Satisfactory.

3.6.5 Country ownership and driven-ness

110. The deliberate and strategic involvement by UNEP of co-implementing organizations such as UNDP India and ICRAF Uganda, under the UNDAF framework helped to ensure that the products and processes of this project were aligned with national goals and objectives of each country. In Uganda, the identification of national level partners and engagement of EAGs with representatives from government MDAs helped to promote country-driven approaches, resulting in integration of learning from the project into short and longer term national

development plans and country strategies. Due to the project's design which targeted mainly national level stakeholders however, the opportunity was missed in Uganda for devolved government structures such as district agricultural offices in charge of production in Hoima and Masindi and environmental officers to attend these trainings and to build their capacity to integrate environmental knowledge from scientific studies into the District Production Report.

111. There was less evidence of country ownership and driven-ness with national stakeholders in India. The main source of evidence for this finding is the failure of the Project to integrate learning from scientific pilot studies into national planning for food security using EMAs, despite the earlier start and the many workshops and study finding papers developed and shared by several partner organizations and key experts in the field. Discussions with key EAG members and project implementing partners in India revealed inadequate capacity within partners themselves to effectively influence on national government policy; such as those government parties and national task forces addressing food security who were part of the EAG membership.

Country ownership and driven-ness is rated Moderately Satisfactory

3.6.6 Financial planning and management

112. As mentioned above, the Project "Capacity Building in National Planning for Food Security" was funded by UNDA 7th Tranche from 8th August 2011 to June 2014 .The estimated cost of the project was 710,000 USD. Of this amount a total of 657,271 USD was mobilised and expenditure reported in the various financial reports. The cost of the final evaluation was not included in this figure. The financial reports against the UNEP budget lines were well available. Nevertheless the Project's financial reporting did not allow the evaluation team to assess the expenditure against the project outputs.

113. UNDA funds are considered part of the regular budget in the UN Secretariat system. The Project spent funds from the Environment Fund for project publications because the UNDA budget code (Operational expenses, planned to be used for publication according to the approved project document of this project) was not fitted into spending for publications in the system that was used for ordering, printing and designing publications. No in-kind contributions were evidenced in the budget nor reported by the project.

114. No financial challenges were reported by this project partners based on activities and outputs expressed in the signed SSFAs. Key partners were satisfied overall with the level of funding received. However upon realization of the severe data gaps in India, the additional, unforeseen need to collect time series data to inform pilot studies necessitated a change in strategy from that which was originally assumed in the PRODOC and in the SSFAs. This would have necessitated additional work to fill the data gaps using survey research whose costs in terms of additional finances and time were not factored into the project at the design stage or the SSFAs.

The rating for the financial planning and management was Satisfactory.

3.6.7 Supervision, guidance and technical backstopping

115. Despite the absence of a formal steering committee mechanism as aforementioned under implementation arrangements UNEP's coordination of the project through the legally binding instruments was one of the highlights of this project. All key partners of the projects in Uganda and India recognized and appreciated the dedicated and useful backstopping support, guidance and supervision provided by UNEP staff and management to all key project partners in the target countries. This included organization of EAG meetings with key experts and close collaboration with key partners on pilot studies. This is a positive finding which should be scaled up, assuming even greater responsibility for coordination through a staff dedicated to a possible future project, so as to avoid any confusion by partners about which organization has the ultimate responsibility for outputs.

The rating for UNEP's supervision and backstopping is Satisfactory.

3.6.8 Monitoring and evaluation

M&E design

116. This external terminal evaluation of the Project carried out by an independent expert at the end of the funding period was clearly planned and documented in section 5 of the PRODOC. Other monitoring and evaluation activities and products mentioned include semi-annual progress reports comprising evaluative information collected from partners and analyzed by the project coordinator against objectively verifiable indicators contained in the log frame and reported to the project manager UNEP. A final project report and administrative financial reports were however included as part of the M&E design.

117. The Project was exempt from requirements of a mid-term review (MTR) because it was originally planned as a two year project and extended within the 'under 9 month rule'. Upon the withdrawal of Cuba in 2012, the project applied for and was granted a 6-month extension plus another month under exceptional circumstances due to a UN event that was scheduled in June 2014. The Project did not have any obligations to produce a progress report in 2013 due to the extension period which was under 9 months. Only a final project report and the external evaluation report were required three months following the project period to enable its closure.

118. The fact that the M&E design did not include at mid-term review, was a missed opportunity to learn from implementation and to adjust the project design and approach so as to help the project realize intended results in all target countries[62]. New strategies may have been proposed by the MTR which may have helped to fast track achievement of planned outputs and enable smoother, more coordinated implementation of project activities at local level by helping to clarify partner roles and responsibilities, following up on EAG member requests

[62]EO: mid-term review can take many forms as an internal or external exercise and does not necessarily refer to an independent evaluation in this case.

and engaging more effectively with partners who are most likely to influence national policy on food security due to their close relationship with the government.

119. Future projects of this kind need to incorporate review and reflection strategies and adopt the TOC approach described above, so as to more accurately assess the impact pathways or theory of change leading to desired results. However, it is well appreciated that the TOC methodology was not in use at UNEP at the time when the project was conceptualized and the PRODOC submitted in 2010.

The rating for the M&E design is Moderately Unsatisfactory.

M&E plan implementation

120. Project activities seem to have been more focused on identification of alternative countries in a consultation between UNEP and UNDA. Key members of the project team included a project officer in charge of the coordination aspects and an environmental economist left UNEP HQ in 2012. They were replaced with new staff and a consultant in 2013 that were less familiar with the history of this project. The staff turnover appears to have affected on the M&E implementation by slowing down the momentum started in previous years due to the need to priorities the identification and engagement of a new target country with formal arrangements, whilst continuing to provide much needed support to project partners and scientists engaged formally in the project in a context of reduced UNEP staff with historical perspectives on the project and its requirements. Implementation of this terminal evaluation was significantly delayed by about 10 months, due to other administrative factors beyond the control of this project. This led inadvertently to subsequent delays following contracting of the consultant due to unforeseen scheduling conflicts and logistical delays due to weather and bureaucratic UN processes affecting international travel bookings, which affected the evaluation schedule including timely submission of deliverables.

121. Planned M&E activities stated in the original UNEP project document and implementation of these activities:

i. Half yearly progress reports: collected from partners, analyzed by the project coordinator and submitted to the project manager (UNEP personnel), with activities monitored against the Logical Framework and Objectively Verifiable Indicators. These presented progress achieved in the planned activities, targets reach, problems encountered and actions taken to overcome the difficulties and expenditures incurred. If deviations from planned project progress are detected corrective actions will be taken. Only two progress reports for the 2011-2012 period were provided for this evaluation.

ii. Final report: Within sixty days of the completion of the project, a final report was to be prepared by the project management team using the format required. The Terminal Evaluation found evidence of only two Annual Development Account Reports for years 2011 and year 2012. However this report did not cover the period between January - August 2013 nor the time during the project extension period from September 2013 - July 2014. Further inquiry from the project revealed that in fact this report was not required, due to the

extension of the project on the under 9 months rule. Only this terminal evaluation report was required according to the officer who was consulted.

iii. Administrative financial reports: Administrative and financial monitoring was to be conducted according to the UN Rules and Regulations and included as part of progress and final report. The project manager was to regularly communicate with project partners to follow up with them on project expenditures. Project partners were to submit financial reports to the project manager based on the schedule outlined in the project documents agreed. A final expenditure account was also to be prepared jointly with the programme officers within 90 days of the end of the project. The terminal evaluation was able to substantiate evidence of progress reports by project partners. These reports included financial information related to their costs and expenditures according to their legal agreements. Budget expenditures were reported by the project in the annex section of the progress report. However no separate administrative financial reports were received by the evaluation. Financial reports seem to have been limited to budgetary expenditures contained in the annual progress reports.

The rating for M&E plan implementation is Moderately Unsatisfactory.

4.0 CONCLUSIONS, RECOMMENDATIONS & LESSONS LEARNED

4.1 Conclusions

122. The terminal evaluation of the UNEP capacity building in national planning for food security project revealed some interesting factors of the project that worked well and others that did not work so well presenting missed opportunities. These conclusions are based on the evidence presented so far in this report from triangulation of various sources of information gathered through the various evaluation methods.

123. The conclusions of the evaluation represent the consultant's own views and may be subject to review with presentation of additional evidence and information that may contradict these conclusions.

124. The purpose of this section is to empower the project and UNEP with conclusive information based on the above findings which have their basis in the project's design strengths and limitations and factors beyond the projects direct control which served to either promote or deter it from achieving its potential within the timeframe.

125. For ease of identification with project wins and curbs the findings are presented in the form of two questions: what were the main achievements made by the Project? What were the missed opportunities? This section is followed by recommendations which address both the wins and the curbs experienced by the project.

a) What were main highlights of the Project?

126. The Project successfully achieved its primary objective: "strengthened capacity at the national level to identify environmental impacts and ecosystem degradation related to food production systems in the two countries: India (Punjab State) and Uganda".

127. The project team–Outstanding factors that influenced the achievement of project results according to partner interviews include the overall highly experienced UNEP project team and dedicated support by the coordinator and project officers. Despite the setbacks experienced by the project following the first year of implementation with turnover of key staff, the project coordinator managed to steer the project towards success by inducting the new team members quickly and by actively engaging in the project, providing much needed backstopping support and guidance to project partners. The quality of intervention by the management team when a key target country pulled out is evidenced by the selection in consultation with UNEP of a highly relevant, accessible and engaged country: Uganda, which by its own demonstrated commitment to results managed to realize higher level impacts planned by the project even within constraints of a late start and reduced timeframe.

128. Partner engagement strategy–The project design formally engaged partner institutions with expertise in scientific research using historical data, on trade-off analysis between food production and ecosystem services. It also targeted professionals with policy influence at national level (e.g. the NPA in Uganda). This according to the Terminal Evaluation findings was a winning strategy that promoted national ownership, enhancing potential for achieving sustainability outcomes. Specifically, increased understanding and knowledge on ESS, ecosystem resilience, economic development and human wellbeing on this relatively new area of research. In the case of Uganda, it confirmed strengthening of national capacity to evaluate food production strategies. This was evidenced by reports of integration of pilot study findings on EMA approaches to food production practices into national planning.

129. Buy in and ownership–The relevance of the projects focus and topic is well aligned with national and international development goals and objectives on ensuring food security. With rising food prices, environmental degradation and effects of climate change, there is need to review food production policies using an EMA approach in order to ensure future food security. This project was well received by state and/or non-state actors (e.g. NPA and GIST) which are working to promote food security and ecosystems approaches in India and Uganda. The project is particularly relevant to those interested in building their knowledge and capacity to undertake scientific studies. Also to those interested in interpreting scientific evidence and evaluating studies on trade-offs, as they inform integration of relevant solutions into national food policy.

130. Accurate budgetary allocation – Interestingly, the moderate budget allocated 710,000 USD to this project, was found to be on the whole adequate with all stakeholders expressing their satisfaction with the budget and describing it as adequate for their planned activities under the legally binding agreements. The flexibility with which UNEP handled budgetary amendments by some partners to for instance revise the payment schedule was well appreciated and worked well to ensure that all planned activities were implemented with adequacy of funds.

b) What opportunities were missed by the Project?

131. Severe gaps with historical data limited opportunities for project partners in India to conduct pilot studies using scientifically rigorous methods and to influence national integration of EMA into national food security policies. The pilot studies relying on historical, time series data which dates back at least 60-70 years, limited opportunity by partners in India perform accurate analysis and draw scientifically valid conclusions on trade-offs between food production and ESS, for integration into national level food security policies. This being a relatively new area of study meant that available historical data dating back only about 30 years was inadequate. This necessitated the initiation of primary data collection at farm level, despite the unforeseen nature of these activities by the project during its design.

132. Government bureaucratic processes and lack of clear roles and responsibilities defining the coordination mechanisms between local level partner institutions resulted in duplication of efforts and in some cases with scientific studies, conflicting approaches and data, This was a missed opportunity for the Project in terms of enhancing coordination mechanisms at the ground level in India so as to facilitate enhanced communication and collaboration strategies leading to harmonized approaches and study findings.

Final conclusions

133. The evaluator concludes that the ultimate development goal of the Project: to *integrate environmental issues into development and agricultural policy and national planning*- and its objectives of strengthening capacity at the national level to identify environmental impacts and ecosystem degradation related to food production systems in Uganda and India were for the large part achieved. Successful achievement of the project goal and objectives was most clearly evidenced in Uganda through the increased the number of national technical documents on the value of food production related ecosystem services and links with MDGs and by increased numbers of national stakeholders in Uganda (over 50 EAG members) with increased knowledge about trade-offs between food production and ecosystem management as evidenced by their success with integrating environmental issues into development and agricultural policy and national plans. As figure 3 shows, with food production practices becoming more environmentally sustainable, there is increased potential to achieve long term impacts in the areas of poverty eradication and environmental sustainability (MDG 1 and 7 respectively).

134. Progress with meeting the Project's goal and objectives in India was evident, although to a lesser extent as compared to Uganda. The establishment of national expert advisory groups with 30 members representing policy makers, legislators, local academic institutions and NGOs in India and by linking them to national level stakeholders, international experts and policy maker's networks with particular relevance to food production and ecosystem management, the project created awareness which could potentially enhance EAG members' abilities to undertake trade-off analysis between food production and ecosystem services in terms of ecosystem resilience, economic development, and food security in future. The increased number of pilot studies conducted by partners on trade-off analysis on food production and ecosystem services at three levels: ecosystem resilience, economic

development and human development has potential to contribute to increased understanding amongst EAG members about trade-offs between food production and ecosystem services in future. The issue of data quality and coordination by local level partners with relevant national and local level stakeholders needs to be addressed more effectively and strategically on future projects of this kind.

Table 6: Summary of the evaluation criteria and ratings

Criterion	Ref.	Rating	EO rating
A. Strategic relevance	**3.1**	**HS**	**S**[63]
B. Achievement of outputs	**3.2**	**S**	**S**
C. Effectiveness: Attainment of objectives and planned results	**3.3**	**MS**	**MS**
1. Achievement of direct outcomes as defined in the reconstructed TOC	3.3.1	S	S
2. Likelihood of impact using ROtI approach	3.3.2	MS	MS
3. Achievement of formal project objectives as presented in the Project Document.	3.3.3	MS	MS
D. Sustainability and replication	**3.4**	**MU**	**U**[64]
1. Socio-political sustainability	3.4.1	L	L
2. Financial resources	3.4.2	U	U
3. Institutional framework	3.4.3	ML	ML
4. Environmental sustainability	3.4.4	ML	ML
5. Catalytic role and replication	3.4.5	MS	MS
E. Efficiency	**3.5**	**MS**	**S**[65]
F. Factors affecting project performance			
1. Preparation and readiness	3.6.1	MS	MS
2. Project implementation and management	3.6.2	S	S
3. Stakeholders participation, cooperation and partnerships	3.6.3	S	S
4. Communication and public	3.6.4	S	MS[66]

[63] EO: Gender equality and HRBA (refer to 3.1.3 and 3.1.4) are also assessed under the 'Strategic relevance' criterion. Based on the analysis in this report and sample of additional project documentation analyzed by the EO, it can be concluded that moderately satisfactory application of gender equality and HRBA lowers the overall rating of the Strategic relevance criterion. Thus EO rates this criterion as 'Satisfactory' (S).

[64] EO: As stated in the evaluation TOR: All the dimensions of sustainability are deemed critical. Therefore, the overall rating for sustainability will be the lowest rating on the separate dimensions. Thus, EO revised the overall rating for sustainability to be Unlikely (U) [technical revision based on the rating guidelines of the UNEP EO].

[65] EO: EO considered the project budget, time frame, external challenges and project team's ability to respond to the changing conditions as assessed in this report. Thus, EO rates the efficiency as 'Satisfactory' (S).

Criterion	Ref.	Rating	EO rating
awareness			
5. Country ownership and driven-ness	3.6.5	MS	MS
6. Financial planning and management	3.6.6	S	S
7. Supervision, guidance and technical backstopping	3.6.7	S	S
8. Monitoring and evaluation	3.6.8	MU	MU
i. M&E design	*3.6.8*	*MU*	*MU*
ii. M&E plan implementation	*3.6.8*	*MU*	*MS*[67]
Overall project rating		**MS**	**S**[68]

[66] EO: As the output 5 regarding the communications strategy was not achieved as planned and was reported as limiting the extent of the outreach activities, EO rates Communications and public awareness criterion as 'Moderately Satisfactory' (MS).

[67] EO: EO rates the M&E implementation as 'Moderately Satisfactory', because the project has fulfilled its minimum monitoring and reporting requirements. Nevertheless, the EO agrees with 'Moderately Unsatisfactory' rating of the overall M&E because the planning was not sufficient.

[68] EO: The overall project rating by EO is based on a numeric weighted scoring system (UNEP Evaluation Office, June 2016).

4.2 Recommendations

135. The following is a presentation of the main recommendation that has been generated from the evaluation findings:

136. Recommendation 1

Context:	UNEP's Capacity Building in National Planning for Food Security project is well aligned to UN commitments to increase global food production 50% by 2030 as called for by the UNSG, in order to meet increasing global demand for food. The Project's objectives which focus on a) promoting food security and b) ensuring sustainable ecosystem services in India and Uganda; have a catalytic role of increasing understanding of complex approaches Ecosystems Management Approaches (EMAs) to food security, by highlighting economic measures of ecological degradation. As also discussed in this evaluation report, this can positively influence the integration of food security planning using EMAs, into national food policies.
Recommendation:	This recommendation is made with specific reference to the Project's implementation challenges. They, refer to the withdrawal of Cuba and its replacement with Uganda against the context of reduced time and budget for activity implementation and the project's failure to achieve success with national stakeholders in India. As discussed in this report, this was due to severe time series data gaps for informing pilot studies on the trade-offs between food production, ESS, Ecosystem Management and other potential thematic areas (e.g. health, transport, economy, transgenic crops). This recommendation also takes into account the project's implementation successes. For example, the goodwill evidenced in Uganda through the initiation of processes for integrating EMA approaches to food production policy in national development plans. These factors together, coupled with the potential high risk of losing the interest and momentum generated by the Project with key partners in India and Uganda justifies funding by UNEP and its funding partners of a follow-up project, to be formulated without further delay with key stakeholders in the two target countries. The follow-up project is strongly recommended by the terminal evaluation, with focus on taking learning to the next level. By deepening understanding on the scientific, analysis of trade-offs between food production and ESS and other relevant sectors, the new project will likely achieve capacity building, buy in and national ownership. This will foster integration of EMAs into national food security planning and policy development in target countries and perhaps even globally in the longer term. *It is recommend that the follow-up project is formulated without further delay by UNEP and its funding partners in close consultations with key stakeholders in the two target countries.*

Responsibility:	UNEP, UNDA, other UN partners, Uganda and India governments, and key project partners
	Recommendation 2[69]
Context:	Knowledge and understanding on the trade-offs between food production and ecosystem services ESS.
Recommendation:	The evaluation strongly recommends that a follow-up project will be designed and funded, in order to build on the momentum, interest and demand created by this project amongst national stakeholders in India and Uganda. *As EMA is a relatively new scientific approach, training should focus on deepening learning. Therefore, longer and more frequent training sessions should be planned to allow for adequate time to absorb, understand and appreciate the new approach.*
Responsibility:	UNEP
	Recommendation 3[70]
Context:	Capacity building in EMAs.
Recommendation:	Based on the evidence on knowledge of EMAs, *the evaluation strongly recommends that the project targets both national and local level stakeholders for capacity building initiatives in future. The evaluation further recommends that pilot studies assessing trade-offs between food security, ESS provision and biodiversity be expanded to other agro and geo-ecological zones in each country, where different results and findings may be realized.* This will ensure that the capacity of a critical mass of Ministries, Departments, Agencies (MDAs) and other stakeholders is built. This approach will also promote the UNEP-HRBA principle, ensuring equal access to project benefits by vulnerable groups (for example, women and poor farmers in rural areas). To promote the drawing of conclusions on study recommendations and their integration into national food security planning using EMAs, *it is critical for UNEP to focuses its attention towards the quantification of costs of the Green Revolution on ESS and biodiversity.* This will require significant enhancements to the proposed follow-up project budget and adequate allocations within an expanded project timeframe, due to the data and capacity gaps and needs experienced so far in each country. Through its new focus on quantification of EMAs, the new project could help to strengthen the case/argument for integration of these approaches into food security policy. It will also help to capacitate key MDA and other stakeholders' abilities to sensitize policy makers

[69] EO acknowledges the recommendation 2. Nevertheless, as the follow-up project in not planned for these target countries, it will be taken as a lesson to be considered in the design and implementation of other similar projects.

[70] EO: recommendation 3 consists of several recommendations. As the follow-up project is not planned for these target countries, these recommendations will be taken as lessons to be considered in the design and implementation of other similar projects.

	and politicians to support relevant food policy change. The momentum initiated through quantifying impacts of the Green Revolution in India and intensification in Uganda on ESS and biodiversity should be continued. Otherwise, opportunities to influence positive change for achieving planned project impacts in target countries may be missed. Strengthening and documenting the comparisons between EMAs in Punjab and Uganda could have been a learning opportunity for policy makers in those countries. This should also be promoted in the proposed new project in the spirit of deepening UNEPs SSC mechanism in the project's target countries.
Responsibility:	UNEP and implementing partners in India and Uganda
	Recommendation 4[71]
Context:	Studies on trade-offs between food production and ESS.
Recommendation:	*UNEP and its funding partners should focus future efforts on improving the quality of pilot studies on EMAs, by enhancing the depth and scope of analysis possible, to measure and report on trade-offs between food production and ESS in India and Uganda.* In the case of India, this would require focus on time-series; historical data up to 70 years, with application of mixed research methods and primary data sources. Improvements to data quality in the case of Uganda should focus on improving the modeling approach used successfully by ICRAF. In the absence of reliable historical data, this approach is based on developing scenarios and conducting future projections. The costs associated with improving the quality of these case studies in India and Uganda needs to be projected in consultation with UNEP's implementing partners. As they are working on the ground, these partners have already initiated similar efforts and are best placed to provide more accurate estimates for consideration in new budgetary allocations.
Responsibility:	UNEP; Implementing partners in India and Uganda

[71] EO acknowledges the recommendation 4. Nevertheless, as the follow-up project is planned for these target countries, it will be taken as a lesson to be considered in the design and implementation of other similar projects.

4.3 Lessons Learned

Although there were many lessons to be learned from the implementation and findings of this project, a few lessons stand out and are therefore highlighted by the terminal evaluation for reflection and future consideration in similar UNEP projects[72].

Lesson 1	Options for strengthening the monitoring, evaluation and reporting (MER) function should be well considered on future UNEP projects involving multiple partners in multiple countries and regions of the world. *A key lesson learned is the need to incorporate a mid-term review on projects with funding duration of at least two years.* This is especially important for UNEP projects that address newer areas of research with partners engaged on Small Scale Funding Agreements (SSFAs), with a mandate to deliver on their agreements. The higher level of coordination required on this type of project necessitates adequate capacity within the project team to respond in a timely way to any implementation gaps and challenges. *UNEP should enhance its mechanisms and guidelines to support small and medium size projects in project monitoring.* This will help to effectively address service delivery gaps and promote timely up-scaling and expansion of successful strategies and interventions to achieve greater impact levels by UNEP. Adequate funding based on UNEP and other evaluation guidelines[73] should be accorded to these tasks following best practices for evaluation. This will enable the use of mixed methods for monitoring and evaluation (M&E) activities such as baseline data collection, activity reviews, mid- and end-term evaluations, field visit monitoring, capacity building, and M&E system development in line with results-based management practice. Tighter coordination would ensure timely and adequate delivery of services at national and local levels and promote the achievement of desired, planned results.
Application	Outcome 1: Increased understanding & knowledge on ESS, Ecosystem Resilience, economic development & human wellbeing; and Outcome 2: Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA

[72] EO would extend the application of these lessons beyond the project related outcomes as indicated in the table.

[73] Evaluation budgeting guidelines can be found on www.oecd.org

Lesson 2	To promote the long-term sustainability benefits and impacts beyond the UNEP project and to manage government bureaucracy, *it would be advisable for UNEP to consider signing Memorandum of Understanding (MOU) agreements with national governments to support the achievement of objectives and goals of funded projects.* MOUs can be either formal, or informal, non-legally binding agreements that are used to formalise and promote commitment by all partners. MOUs have the added value of helping to clarify the roles and responsibilities of each involved party as well as stipulating the agreed mutual benefits. MOUs can be reviewed, monitored and also adapted with the emergence of new information about strategies that can best promote the achievement of planned results. A MOU with the Government of India for instance would have been a useful point of reference, providing justification and high level support for the project stakeholders who include EAG members and implementing partners. Such an agreement may have helped to foster cooperation, resulting in future integration of pilot study findings on analysis of trade-offs between food production and ESS into national food policies. A MOU can specify the target government's financial and/or in-kind commitments towards ensuring that benefits accrued from UNEP projects are sustained beyond the project period. In addition, there would be need to follow up recommendations for each government with adequate budgetary allocations.
Application	Outcome 2: Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA
Lesson 3	A number of factors were critical for ensuring the successful implementation and completion of project activities in each country. They include the establishment of EAGs, comprising of state and non-state actors; conducting learning and findings sharing workshops on EMAs; leveraging the work of UNEP's implementing partners; and promoting synergies between them. It also includes mitigating the risks of reduced effectiveness from Cuba's withdrawal from the project one year after implementation, through identification of a suitable alternative country (Uganda). By engaging a national institution (NPA) as the lead implementing partner championing the project in Uganda, the Project was able to significantly accelerate the pace at which project results were achieved, despite the challenges of a reduced project time-frame and budget. In the case of India the lessons learned from difficulties with coordination experienced by the lead NGO partner (GIST) highlights the *need for UNEP to ensure periodic monitoring, review and feedback of its coordination strategies with lead, national partner champions. This would help to adequately address potential gaps of service that may hinder the achievement of planned results by similar UNEP projects in future.*

Application	Outcome 2: Strengthened national capacity to evaluate food production strategies and integration into national planning using EMA.
Lesson 4	Project stakeholders noted the complexity of EMAs which are neither widely understood nor information easily accessible in the literature. Assumptions by the Project of the existence of relevant data sources in established repositories of agricultural and environmental data (e.g. PAU) were however proved inaccurate. This is due to the new ecosystems services rather than traditional economic measurement focus of ecological impacts from food production practices. These require new data and approaches to be applied. The need to seek additional historical, time-series data from primary sources (farmers) in order to accurately perform scientific analysis studies on ecological trade-offs of food production in India was unforeseen by the Project. *A useful lesson learned is the need to allocate adequate time, financial and human resources into the PRODOC design for future UNEP projects of this kind.* This would provide a contingency and help mitigate for potential risks of unforeseen activities requiring additional investment. Complaints by some project partners and EAG members concerning the inadequacy of time for absorption of new EMAs, and severe deficiencies of historical time-series data for conducting accurate trade-off analysis compromised the learning experience provided through training outputs. EAG members called for improved coordination by key partner institutions, with wider level engagement and systematic feedback processes built into the project. Enhanced access to resource persons to promote learning and information exchange under the SSC mechanism of UNEP is vital to the new approach, facilitating mechanisms for continued future collaboration.
Application:	Outcome 1: Increased understanding & knowledge on ESS, Ecosystem Resilience, economic development & human well being

5.0 ANNEXES

ANNEX I. TERMS OF REFERENCE FOR THE EVALUATION

TERMS OF REFERENCE[74] Terminal Evaluation of the UNDA 7th tranche funded UNEP project "Capacity building in national planning for food security"

1. PROJECT BACKGROUND AND OVERVIEW: Project General Information

Table 1. Project summary

UNEP PIMS ID:	01582	**IMIS number:**	1574
Sub-programme:	SP3: Ecosystem Management	**Expected Accomplishment(s):**	EA 3b: Countries and regions have the capacity to utilise and apply ecosystem management tools
UNEP approval date:	09 February 2010	**PoW Output(s):**	2012-13 PoW # 321 2014/15 PoW #321
Expected Start Date:	08 August 2011	**Actual start date:**	08 August 2011
Planned completion date:	07 August 2013	**Actual completion date:**	31 July 2014
Planned project budget at approval:	USD 710,000.-	**Total expenditures reported as of [date]:**	$ 200,070.-
Planned Environment Fund (EF) allocation:	-	**Actual EF expenditures reported as of [date]:**	$ 200,070.-
Planned Extra-budgetary financing (XBF):	-	**Actual XBF expenditures reported as of [date]:**	
XBF secured:	-	**Leveraged financing:**	-
First Disbursement:	$ 355,000.-	**Date of financial closure:**	
No. of revisions:	3	**Date of last revision:**	06 October 2014
Date of last Steering Committee meeting:			
Mid-term review/ evaluation (planned date):	-	**Mid-term review/ evaluation (actual date):**	-
Region	Asia Pacific and Africa	**Countries**	India (Punjab State) and Uganda
Terminal Evaluation (actual date):	February 2015		

[74] TOR template version of Sep-13

2. Project rationale

Despite almost half a century of growth in food production, one in seven people today lack access to sufficient protein and energy from their diets[75]. World population and consumption are still on the increase adding more pressure to the food supply system. These trends in demography and consumption patterns when added to the overarching threat of climate change and irreversible ecosystem service degradation lead higher uncertainties regarding our current food production model.

The UN Secretary General recently announced that there is a need for global food production to increase by 50% by 2030 to meet increasing demand; UN agencies were requested to assess whether these increases may be part of a longer term arising problem. Representing the consensus view of the UN system, including the Bretton Woods institutions and other relevant international organizations, the Comprehensive Framework for Action (CFA) on how to respond to the global food crisis in a coherent and coordinated manner, was developed.

Although in the longer term expanded demand and increased prices for agricultural commodities may represent an opportunity for agricultural and rural development, there are many constraints to be overcome if a significant agricultural commodity supply response is to be made without compromising efforts in poverty alleviation and environmental sustainability. Countries are however scrambling to increase their food production to meet food security targets with little attention paid to the potential environmental and social impacts this may cause.

There is a need to appreciate the interrelationship between intensified food production and its impacts on ecosystem services. Understanding the distributive impacts of policy decisions to increase food production is vital; the socio-economic dynamics in access to food are essential to food security policies, including gender and vulnerability issues. Small scale-holders and specifically women in rural areas are of particular relevance in ensuring food security but they are also the most vulnerable to food shortages. Poorer urban populations are also very much at risk of food shortages and specific attention needs to be paid to peri-urban and urban agricultural production.

Quoting the Millennium Ecosystem Assessment (MA) report "Ecosystems and Human Well-being: Policy responses" there is evidence on the existence of a fundamental trade-off between the need to increase food production and the need to sustain, in the long run, the capacity of the ecosystems to support food production. Studies have shown that food production is the largest user of ecosystems and their provisioning services, and therefore food production has the largest impact on ecosystems and biodiversity. Enhanced knowledge on these aspects allows us to better develop long-term food security strategies that encompass sustainable environmental management and ensure the overall sustainability of developing nations.

The need to mitigate impacts on ecosystems and sustain their capacity for future generations makes necessary the introduction of appropriate regulatory frameworks at all levels from local to global that will control for the externalities affecting the capacity of ecosystems to sustain their food

75 Godfray, H.C.; Beddington, J.R.; Crute, I. R.; Lawrence H.; Lawrence D.; Muir J. F.; Pretty J.; Robinson S.; Thomas S. M.; and Toulmin C. 2010. Food Security: The Challenge of Feeding 9 Billion People. Science number 327 (5967), page 812.

provisioning services. One of the main lessons learned from the analysis of the responses in the MA is that "issues of food and ecosystems will require comprehensive assessments and knowledge at the local, national, and international level of agro-ecological and socio-economic conditions, in order to ensure that farmers can produce food in a manner that is environmentally, economically, and socially sustainable and that consumers have the opportunities to make choices regarding food that is nutritious and healthy, safe and affordable. Specific research focusing on the differential vulnerability of farmers, as well as, ecosystems will be required".

A recent review article published in the prestigious journal Science highlight three world challenges in meeting global food security[76]: (i) match the changing demand for food, (ii) do so in an environmentally and socially sustainable way, and (iii) ensure that the world's poorest are no longer hungry. The delivery of ecosystem services by human managed ecosystems is becoming increasingly important with ever more land put in use for agriculture. However, there is limited knowledge regarding the relationships between different food production systems and ecosystem services provision.

The proposed project aims at addressing issues of environmental and social sustainability in food production systems by taking an ecosystem services perspective. This UN Development Account (UNDA) 7th tranche funded project was approved by the UNDA Secretariat and initiated its implementation from August 2011. The project has been implemented by the United Nations Environment Programme (UNEP) - which has implemented various related initiatives in food security including the preparation of the Rapid Response Assessment Report on the world food crisis - in collaboration with the United Nations Development Programme (UNDP), as well as other local scientific institutions with main activities in this area.

The project builds upon recommendations from the Millennium Ecosystem Assessment (MA) and recent major reports on these aspects. It has undertaken pilot studies in India (Punjab State specifically) and Uganda (an alternative country identified after the withdrawal of Cuba and discussion with a partner and the UNDA Secretariat to find an another alternative rather Niger considering a short time given to implement activities), to address the increasing food security deficits and ecosystem services decline, by building knowledge and facilitating the use of this knowledge by policy makers and stakeholders. The proposed project is expected to add value in identifying the cost and benefits of food production policies on ecosystems, promoting synergy with the ecosystem approach, and enhancing the understanding of the linkages between ecosystem services and food security through capacity building activities.

[76] Food Security: The Challenge of Feeding 9 Billion People. Science number 327 (5967)

3. Project objectives and components

The project's overall development goal is the integration of environmental issues into development and agricultural policy and national planning. Its primary objective is ***to strengthen the capacity at the national level to identify environmental impacts and ecosystem degradation related to food production systems in the two countries: India (Punjab State) and Uganda.***

This project is most closely linked to the international commitment for the MDGs, in particular those referring to poverty eradication and the environment (Objectives 1 and 7). By taking learning by doing approach, this project aims at tackling these development goals by building capacities at the country level. This project also contributes to the respective national United Nations Development Assistance Frameworks (UNDAF) elaborated in the two countries.

Table 2 below presents the project's Logical Framework which indicates the expected Outcomes, Indicators, Means of Verification of the project's main components and the contributing activities:

Table 2: Logical Framework

Expected Accomplishments* (Outcomes)	Outcome Indicators*	Contributing Activities**	Project Outputs**	1. Output Indicators**	2. Milestones
EA 1: Increased understanding and knowledge among national stakeholders of the trade-offs between food production and ecosystem services by focusing on three aspects: ecosystem resilience, economic development, and human well-being.	Increased number of national stakeholders with increased knowledge about trade-offs between food production and ecosystem management as well as with the ability to undertake trade-off analysis between food production and ecosystem services in terms of ecosystem resilience, economic development, and food security.	Activity 1: Establish national expert advisory group composed of policy makers, legislators, local academic institutions and NGOs on planning for sustainable food production and ecosystem services established.	Output 1: National experts advisory groups composed of policy makers, legislators, local academic institutions and NGOs on planning for sustainable food production and ecosystem services established.	The number of groups established (one per country)	M1 Legal instruments with local partners in Punjab State (India) completed. M2 A national expert advisory group established and an inception workshop completed in Punjab State (India). M3 An outline of training modules completed for the training in Punjab State (India). M4 Legal instruments

Expected Accomplishments* (Outcomes)	Outcome Indicators*	Contributing Activities**	Project Outputs**	1. Output Indicators**	2. Milestones
	Increased number of national stakeholders and personnel linked up at the national as well as at the international level with experts and policy maker's networks with particular relevance to food production and ecosystem management. Increased number of national technical documents on the value of food production related ecosystem services and links with MDGs.				with local partners in Uganda completed. M5 A national expert advisory group established and the inception workshop completed in Uganda.
		Activity 2: Organize training workshops for members of the national expert advisory groups on conducting a trade-off analysis on food production system and ecosystem services organized.	Output 2: Training workshops for members of the national expert advisory groups on conducting a trade-off analysis on food production system and ecosystem services.	The number of specialised trainings organized (one per country)	M6 A training workshop held in Punjab State (India). M7 A training workshop held in Uganda.
		Activity 3: Conduct pilot studies to understand trade-off of food production and ecosystem services, by undertaking trade-off analysis on food production and ecosystem services at three levels:	Output 3: Pilot studies to understand trade-off of food production and ecosystem services by undertaking trade-off analysis on food production and ecosystem services at three levels: ecosystem	Technical reports of completed pilot studies (one per country)	M8 A concept note for the pilot study developed based on which a study to analyse trade-offs between food production and ecosystem services initiated in Punjab State (India).

Expected Accomplishments* (Outcomes)	Outcome Indicators*	Contributing Activities**	Project Outputs**	1. Output Indicators**	2. Milestones
		ecosystem resilience, economic development and human development conducted.	resilience, economic development and human development		M9 A concept note for the pilot study developed based on which a study to analyse trade-offs between food production and ecosystem services initiated in Uganda. M10 Pilot study in Punjab State (India) completed. M11 Pilot study in Uganda completed.
EA 2: Improved capacity at the national level to evaluate a sustainable food production strategy and its integration into national planning using an ecosystem management approach.	Increased number of national stakeholders and personnel able to integrate food security/food production related ecosystem management strategies into national food security/production plans.	Activity 4: Organize workshop for members of the national expert advisory group to evaluate the findings of the trade-off analysis, conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem	Output 4: Workshop for members of the national expert advisory groups to evaluate the findings of the trade-off analysis, conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management.	The number of workshops (one per country)	M12 A final workshop held in Punjab State (India). M13 A final workshop held in Uganda. M14 A final workshop for the project held and findings disseminated.

Expected Accomplishments* (Outcomes)	Outcome Indicators*	Contributing Activities**	Project Outputs**	1. Output Indicators**	2. Milestones
		management			
		Activity 5: Develop An outreach strategy for disseminating the findings of the study to all relevant stakeholders.	Output 5: An outreach strategy for disseminating the findings of the study to all relevant stakeholders.	The number of policy dialogues and outreach events on the integration of ecosystem management strategies into national food security/production plans. Target: 3 dialogues/events	M15 A web-based knowledge management platform developed for the project.

* Project Document

** Project Document Supplement 16.01.2013

4. Executing Arrangements

UNEP was responsible for the overall project coordination, policy analysis and outreach. The project was implemented by UNEP Division of Environmental Policy Implementation (DEPI) in collaboration with UNEP Regional Office for Asia and the Pacific (ROAP) and Regional Office for Latin America and the Caribbean (ROLAC). This project contributes to the United Nations Development Assistance Frameworks (UNDAF). It targets mainly government officers (decision makers) from ministries of Planning and Investment, Agriculture, Environment, Fisheries, Energy, etc., the scientific community and NGOs working in this field.

The international and local partner organizations with which the project has collaborated with included:

- ICRAF (World Agroforestry Centre), Kenya
- Green Indian States Trust (GIST), India
- Punjab Agricultural University (PAU), India
- Indian Institute of Forest Management (IIFM), India
- National Planning Authority (NPA), Uganda

Outputs from these organisations were provided through their participation in experts' meetings during the project implementation. The partnering academic institutions were mostly responsible for providing technical inputs to various activities, in particular assessing trade-offs.

ROAP and ROLAC were consulted in the preparatory works of the project, and engaged in the development of the project concept. They were to be kept informed and consulted throughout the project on technical issues of regional relevance, and were expected to play a key role particularly when establishing contacts and collaborating with national and regional institutions during the implementation of the project.

An advisory group consisting of world leading experts in food security was put in place to provide guidance throughout the project and ensure that best and up-to-date science is being used.

5. Project Cost and Financing

The total programmed budget was USD 710,000. Funding was provided by the United Nations Development Account (UNDA). There were no revisions to the budget during project implementation. There were no co-financing or leveraged funds. Table 3 below presents the project budget categorised under the various planned activities and results.

Table 3: Result-based Budget

Expected accomplishment	Main activities	Amount (USD)
EA1: Increased understanding and generated knowledge of the trade-offs between food production and ecosystem management by focusing on the three aspects ecosystem resilience, economic development, and human well-being, among national stakeholders.	A1 Build on national networks of experts and policy makers, including ministries of environment, economic, finance, fisheries, energy as well as legislators, local academic institutions and NGOs to form national expert's advisory groups on planning for sustainable food production and ecosystem services.	**62,000**
	A2 Organize training workshops for members of the national expert's advisory groups on conducting a trade-off analysis on food production system and ecosystem services. Including an inception workshop to be organized at the initial phase of the project in each country, inviting key stakeholders to establish the modalities for the close cooperation.	**84,500**
	A3 Conduct, with active involvement of the national expert's advisory groups, pilot studies to understand trade-off of food production and ecosystem services, by undertaking trade-off analysis on food production and ecosystem services at three levels: ecosystem resilience, economic development and human development. These pilot studies will be the bases for a sustainable food production strategy using an ecosystem management.	**383,500**
EA2: Improved and built capacity at the national level to plan and design a sustainable food production strategy and integrate it in national planning using an ecosystem management approach for achieving sustainable food security.	A4 Organize workshop for members of the national experts advisory groups to evaluate the findings of the trade-off analysis, conclude on recommendations and guidelines that form a basis for developing a strategic action plan for sustainable food production and ecosystem management	**65,000**
	A5 Develop an outreach strategy for disseminating the findings of the study to all relevant stakeholders	**103,000**

Expected accomplishment	Main activities	Amount (USD)
	Monitoring and Evaluation of the project	**12,000**
Total		**710,000**

6. Implementation Issues

Initially, two pilot sites were identified for the project: Punjab State, India and Cuba. However, as communicated earlier with the UNDA Secretariat, after the completion of some of the initial work in Cuba in close collaboration with the Ministry of Environment of the Government of Cuba and the UNDP office in Cuba, the Government of Cuba communicated with UNEP dated 4 October 2012, informing of their withdrawal from the project. In several occasions, UNEP was informed that the main problem encountered in the Government of Cuba was the challenge in receiving the official approval for the project within the Government of Cuba due to the changes and reorganization within the Government. Further to extensive internal discussions at UNEP and consultations with the UNDA Secretariat, it was decided that the project will be implemented in an alternative country. After exploring a few countries, it was decided that the project will be implemented in Uganda, which was communicated to, and approved by the UNDA Secretariat dated 8 May 2013. The project team at UNEP initiated the discussions with partners to be engaged in the project, in particular, the National Planning Authority (NPA) and the National Environment Management Authority (NEMA) of the Government of Uganda, as well as the World Agroforestry Centre (ICRAF). As at 23 September 2013, these institutions have been fully engaged and committed to implement the project.

An extension of the project for the duration of six months (till 30 June 2014) was requested primarily due to the unforeseen change in one of the originally identified pilot countries (from Cuba to Uganda), and the fact that activities in Uganda were initiated only in May 2014. Most of the activities in the other pilot country, India, had been finalized, with some of the remaining work related to outreach and dissemination to be completed towards the end of November 2013. While the activities in Uganda have been implemented with relative ease, in order to ensure the completion of all the planned activities with full engagement of all the key stakeholders in Uganda, and to ensure the quality of project outputs, it was estimated that the six-month extension of the project is required.

Delays were also experienced as a result of the difficulties in establishing local expert working groups and ensuring ownership of the project by the respective national government - which is a complex procedure that took longer than previously expected.

Other issues that caused implementation challenges included general delays due to UNEP administrative processes (legal, HR, procurement), delayed funding (disbursement, allotment), and delays/lack of capacity by the implementing partners in submitting deliverables.

2. TERMS OF REFERENCE FOR THE EVALUATION

a. Objective and Scope of the Evaluation

In line with the UNEP Evaluation Policy[77] and the UNEP Evaluation Manual[78], the Terminal Evaluation of the Project "**Capacity building in national planning for food security**" is undertaken at completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability The evaluation has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and the main project partners (ICRAF, GIST, PAU, IIFM, NPA). Therefore, the evaluation will identify lessons of operational relevance for future project formulation and implementation.

It will focus on the following sets of **key questions**, based on the project's intended outcomes, which may be expanded by the consultant as deemed appropriate:

How successful was the project in facilitating knowledge and building capacities at the national and local level to identify environmental impacts and ecosystem degradation related to food production systems in Punjab State and Uganda?

To what extent did the project succeed in enhancing understanding and knowledge among national stakeholders of the trade-offs between food production and ecosystem services (with focus on three aspects: ecosystem resilience, economic development, and human well-being)?

What is the degree of success by the project in building the capacity of decision makers at national level to evaluate their food security strategies from an ecosystem services perspective, and utilise relevant ecosystem management approaches?

To what extent has the project contributed to the integration into national development and planning processes, of food production issues in the light of ecosystems? Is there evidence of the countries re-aligning their national environmental programmes to address the synergies between food-security and ecosystem degradation related to food production systems?

What were the most effective strategies used by the project and what were the key drivers and assumptions required to influence the achievement of project's planned objectives and results?

b. Overall Approach and Methods

The Terminal Evaluation of the Project will be conducted by an independent consultant under the overall responsibility and management of the UNEP Evaluation Office in consultation with the UNEP Project Manager and the Sub-programme Coordinators of the Ecosystem Sub-programme.

[77] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationPolicy/tabid/3050/language/en-US/Default.aspx

[78] http://www.unep.org/eou/StandardsPolicyandPractices/UNEPEvaluationManual/tabid/2314/language/en-US/Default.aspx

It will be an in-depth evaluation using a participatory approach whereby key stakeholders are kept informed and consulted throughout the evaluation process. Both quantitative and qualitative evaluation methods will be used to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant maintains close communication with the project team throughout the evaluation implementation phase in order to increase their ownership of the evaluation findings.

The findings of the evaluation will be based on the following:

(a) A **desk review** of:

a. Relevant background documentation, inter alia UNEP Medium-term Strategy 2010-2013 and Programmes of Work, relevant policies and legislation, including project background information available online;

b. Project design documents; Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplements), the logical framework and its budget;

c. Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence etc.;

d. Project outputs: (training workshops, pilot studies, outreach strategies and materials, national advisory groups, trade-off analysis, etc.);

e. Evaluations/reviews of similar projects

f. Any other relevant material on the project design and its implementation.

Interviews (individual or in group) with:

g. Project management team

h. UNEP Fund Management Officer;

i. Project partners, including [list];

j. Relevant resource persons;

Surveys (e.g. questionnaire surveys targeting selected countries and participants of outreach events)

Field visits (this evaluation will entail missions to the UNEP Headquarters in Nairobi, and the project location in Punjab State and/or Uganda)

Other data collection tools

c. Key Evaluation principles

Evaluation findings and judgements should be based on **sound evidence and analysis**, clearly documented in the evaluation report. Information will be triangulated (i.e. verified from different

sources) to the extent possible, and when verification was not possible, the single source will be mentioned. Analysis leading to evaluative judgements should always be clearly spelled out.

The evaluation will assess the project with respect to **a minimum set of evaluation criteria** grouped in six categories: (1) Strategic Relevance; (2) Attainment of objectives and planned result, which comprises the assessment of outputs achieved, effectiveness and likelihood of impact; (3) Sustainability and replication; (4) Efficiency; (5) Factors and processes affecting project performance, including preparation and readiness, implementation and management, stakeholder participation and public awareness, country ownership and driven-ness, financial planning and management, UNEP supervision and backstopping, and project monitoring and evaluation; and (6) Complementarity with the UNEP strategies and programmes. The evaluation consultant can propose other evaluation criteria as deemed appropriate.

Ratings. All evaluation criteria will be rated on a six-point scale. However, complementarity of the project with the UNEP strategies and programmes is not rated. Annex 3 provides guidance on how the different criteria should be rated and how ratings should be aggregated for the different evaluation criterion categories.

In attempting to attribute any outcomes and impacts to the project, the evaluators should consider the difference between *what has happened with and what would have happened without the project*. This implies that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. This also means that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project. Sometimes, adequate information on baseline conditions and trends is lacking. In such cases this should be clearly highlighted by the evaluators, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance.

Although this is a terminal evaluation, similar interventions are envisaged for the future; particular attention should therefore be given to learning from the experience. The ***"Why?"*** question should be at front of the consultant's mind all through the evaluation exercise. This means that the consultant need to go beyond the assessment of "*what*" the project performance was, and make a serious effort to provide a deeper understanding of "*why*" the performance was as it was, i.e. of processes affecting attainment of project results (criteria under category F – see below). This should provide the basis for the lessons that can be drawn from the project. In fact, the usefulness of the evaluation will be determined to a large extent by the capacity of the consultant to explain ***"why things happened"*** as they happened and are likely to evolve in this or that direction, which goes well beyond the mere review of "*where things stand*" at the time of evaluation.

d. A key aim of the evaluation is to encourage reflection and learning by UNEP staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the evaluation process and in the communication of evaluation findings and key lessons.

e. **Communicating evaluation results.** Once the consultant has obtained evaluation results, the evaluation office will share the findings and lessons with the key stakeholders. Evaluation results should be communicated to the key stakeholders in a brief and concise manner that encapsulates the evaluation exercise in its entirety.

There may however be several intended audiences, each with different interests and preferences regarding the report. The Evaluation Manager will plan with the consultant what audiences to target and the easiest and clearest way to communicate the key evaluation findings and lessons to them. This may include a webinar, presentation, and/or conference calls with relevant stakeholders.

10. Evaluation criteria

3. Strategic relevance

The evaluation will assess, in retrospect, whether the project's objectives and implementation strategies were consistent with global, regional and national environmental issues and needs.

The evaluation will also assess the project's relevance in regards UNEP's mandate and alignment with UNEP's policies and strategies at the time of project approval. UNEP's Medium Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Subprogrammes (SP), and sets out the desired outcomes of the SPs, also known as Expected Accomplishments (EAs). The evaluation will assess whether the project makes a tangible contribution to any of the EAs specified in the MTS 2010-13 and 2014-17. The magnitude and extent of any contributions and the causal linkages should be fully described.

The evaluation should assess the project's alignment with UNEP's policies and strategies. The evaluation should provide a brief narrative of the following:

1. *Alignment with the Bali Strategic Plan (BSP)*[79]. The outcomes and achievements of the project should be briefly discussed in relation to the objectives of the UNEP BSP.
2. *Gender balance*. Ascertain to what extent project design, implementation and monitoring have taken into consideration: (i) possible gender inequalities in access to and the control over natural resources; (ii) specific vulnerabilities of women and children to environmental degradation or disasters; and (iii) the role of women in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation. Appreciate whether the intervention is likely to have any lasting differential impacts on gender equality and the relationship between women and the environment. To what extent do unresolved gender inequalities affect sustainability of project benefits?
3. *Human rights based approach (HRBA) and inclusion of indigenous peoples issues, needs and concerns*. Ascertain to what extent the project has applied the UN Common Understanding on HRBA. Ascertain if the project is in line with the UN Declaration on the Rights of Indigenous People, and pursued the concept of free, prior and informed consent.
4. *South-South Cooperation.* This is regarded as the exchange of resources, technology, and knowledge between developing countries. Briefly describe any aspects of the project that could be considered as examples of South-South Cooperation.

[79] http://www.unep.org/GC/GC23/documents/GC23-6-add-1.pdf

Based on an analysis of project stakeholders, the evaluation should assess the relevance to key stakeholder groups.

4. Achievement of Outputs

The evaluation will assess, for each component, the project's success in producing the programmed outputs and milestones as presented in Table 2 above, both in quantity and quality, as well as their usefulness and timeliness.

Briefly explain the reasons behind the success (or failure) of the project in achieving its different outputs and meeting expected quality standards, cross-referencing as needed to more detailed explanations provided under Section F (which covers the processes affecting attainment of project results).

Establish the extent to which key stakeholders have been appropriately involved in producing the programmed outputs.

5. Effectiveness: Attainment of Objectives and Planned Results

The evaluation will assess the extent to which the project's objectives were effectively achieved or are expected to be achieved.

The ToC of a project depicts the causal pathways from project outputs (goods and services delivered by the project) through outcomes (changes resulting from the use made by key stakeholders of project outputs) towards impact (long term changes in environmental benefits and living conditions). The ToC will also depict any intermediate changes required between project outcomes and impact, called 'intermediate states'. The ToC further defines the external factors that influence change along the major pathways, whether one result can lead to the next. These external factors are either drivers (when the project has a certain level of control) or assumptions (when the project has no control). It also clearly identifies the main stakeholders involved in the change processes.

The evaluation will reconstruct the **Theory of Change (ToC)** of the project based on a review of project documentation and stakeholder interviews. The consultant will be expected to discuss the reconstructed TOC with the stakeholders during evaluation missions and interviews in order to ascertain the causal pathways identified and the validity of impact drivers and assumptions described in the TOC. This exercise will also enable the consultant to solve some of the key evaluation questions and make adjustments to the TOC as would be found appropriate.

The assessment of effectiveness will be structured in three sub-sections:

(a) Evaluation of the **achievement of outcomes as defined in the reconstructed ToC**. These are the first-level outcomes expected to be achieved as an immediate result of project outputs. For this project, the main question will be to what extent the project has contributed to increasing the likelihood that national plans for sustainable food production will use an ecosystem management approach. Additional questions would be to what extent the project has engaged national expert groups through capacity building workshops and policy dialogues, and to what extent policy-makers and experts targeted are likely to consider trade-offs between food production and ecosystem services in national food security production plans.

(b) Assessment of the **likelihood of impact** using a Review of Outcomes to Impacts (ROtI) approach[80]. The evaluation will assess to what extent the project has to date contributed, and is likely in the future to further contribute to: (i) enhanced ability to undertake trade-off analyses between food production and ecosystem services, and (ii) integration of food security/food production related ecosystem management strategies into national food security/production plans, and the likelihood of those changes in turn to lead to positive changes in the natural resource base and other benefits derived from the environment and human well-being.

Evaluation of the **achievement of the formal project overall objective, overall purpose, goals and component outcomes** using the project's own results statements as presented in the Project Document. This sub-section will refer back where applicable to the preceding sub-sections (a) and (b) above to avoid repetition in the report. To measure achievement, the evaluation will use as much as appropriate the indicators for achievement proposed in the Logical Framework (Logframe) of the project, adding other relevant indicators as appropriate. Briefly explain what factors affected the project's success in achieving its objectives, cross-referencing as needed to more detailed explanations provided under Section F.

The evaluation should disaggregate outcomes and impacts for the key project stakeholders.

6. Sustainability and replication

Sustainability is understood as the probability of continued long-term project-derived results and impacts after the external project funding and assistance ends. The evaluation will identify and assess the key conditions or factors that are likely to undermine or contribute to the persistence of benefits. Some of these factors might be direct results of the project while others will include contextual circumstances or developments that are not under control of the project but that may condition the sustainability of benefits. The evaluation should ascertain to what extent follow-up work has been initiated and how project results will be sustained and enhanced over time. The reconstructed ToC will assist in the evaluation of sustainability, as the drivers and assumptions required to achieve higher-level results are often similar to the factors affecting sustainability of these changes.

Four aspects of sustainability will be addressed:

Socio-political sustainability. Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts? Is the level of ownership by the main stakeholders sufficient to allow for the project results to be sustained? Are there sufficient government and other key stakeholder awareness, interests, commitment and incentives to implement policy recommendations outlining the way forward for shifting national food security and food production plans to reflect trade-offs? Did the project conduct succession planning and implement this during the project life? Was capacity building conducted sufficiently for the key stakeholders?

[80] Guidance material on Theory of Change and the ROtI approach is available from the Evaluation Office.

Financial resources. To what extent are the continuation of project results and the eventual impact of the project dependent on financial resources? What is the likelihood that adequate financial resources[81] will be or will become available to use capacities built by the project? Are there any financial risks that may jeopardize sustenance of project results and onward progress towards impact?

Institutional framework. To what extent is the sustenance of the results and onward progress towards impact dependent on issues relating to institutional frameworks and governance? How robust are the institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. required to sustaining project results and to lead those to impact on human behaviour and environmental resources?

Environmental sustainability*.* Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits? Are there any foreseeable negative environmental impacts that may occur as the project results are being up-scaled?

Catalytic role and replication. The *catalytic role* of UNEP interventions is embodied in their approach of supporting the creation of an enabling environment and of investing in pilot activities which are innovative and showing how new approaches can work. UNEP also aims to support activities that upscale new approaches to a national, regional or global level, with a view to achieve sustainable global environmental benefits. The evaluation will assess the catalytic role played by this project, namely to what extent the project has:

(a) ***catalyzed behavioural changes*** in terms of use and application by the relevant stakeholders of capacities developed;

(b) provided ***incentives*** (social, economic, market based, competencies etc.) to contribute to catalyzing changes in stakeholder behaviour;

(c) contributed to ***institutional changes*****,** for instance institutional uptake of project-demonstrated integrated environmental assessment approaches;

(d) contributed to ***policy changes*** (on paper and in implementation of policy);

(e) contributed to sustained follow-on financing (***catalytic financing***) from Governments, private sector, donors etc.; and

(f) created opportunities for particular individuals or institutions ("***champions***") to catalyze change (without which the project would not have achieved all of its results).

(g) ***Replication*** is defined as lessons and experiences coming out of the project that are replicated (experiences are repeated and lessons applied in different geographic areas)

[81] Those resources can be from multiple sources, such as the national budget, public and private sectors, development assistance etc.

or scaled up (experiences are repeated and lessons applied in the same geographic area but on a much larger scale and funded by other sources). The evaluation will assess the approach adopted by the project to promote replication effects and determine to what extent actual replication has already occurred or is likely to occur in the near future. What are the factors that may influence replication and scaling up of project experiences and lessons?

7. Efficiency

The evaluation will assess the cost-effectiveness and timeliness of project execution. It will describe any cost- or time-saving measures put in place in attempting to bring the project as far as possible in achieving its results within its (severely constrained) secured budget and (extended) time. It will also analyse how delays, if any, have affected project execution, costs and effectiveness. Wherever possible, costs and time over results ratios of the project will be compared with that of other similar interventions. Evaluations/reviews of other large assessments may provide some comparative information on efficiency.

The evaluation will give special attention to efforts by the project teams to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc. to increase project efficiency. For instance, the evaluation will consider how well other information sources (on global and regional environmental status and trends, and on the costs and benefits of different policy options) accessible to the different target audiences have been tapped, and how the project ensured the complementarity of its process and products to other assessment processes and information sources, to avoid duplication of efforts? Was there sufficient information about the assessment capacity of collaborating institutions and experts and about other capacity building initiatives, to limit and target training and technical support to what was really needed, avoiding duplication?

8. Factors and processes affecting project performance

Preparation and readiness. This criterion focuses on the quality of project design and preparation. Were project stakeholders[82] adequately identified and were they sufficiently involved in project development and ground-truthing e.g. of proposed time frame and budget? Were the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of implementing partners properly considered when the project was designed? Was the project document clear and realistic to enable effective and efficient implementation? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities) and enabling legislation assured? Were adequate project management arrangements in place? Were lessons from other relevant projects properly incorporated in the project design? What factors influenced the quality-at-entry of the project design, choice of partners, allocation of financial resources etc.?

[82] Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or 'stake' in the outcome of the project. The term also applies to those potentially adversely affected by the project.

Project implementation and management. This includes an analysis of implementation approaches used by the project, its management framework, the project's adaptation to changing conditions (**adaptive management**), the performance of the implementation arrangements and partnerships, relevance of changes in project design, and overall performance of project management. The evaluation will:

(a) Ascertain to what extent the project implementation mechanisms outlined in the project document have been followed and were effective in delivering project milestones, outputs and outcomes. Were pertinent adaptations made to the approaches originally proposed?

(b) Evaluate the effectiveness and efficiency of project management and how well the management was able to adapt to changes during the life of the project.

(c) Assess the role and performance of the teams and working groups established and the project execution arrangements at all levels.

(d) Assess the extent to which project management responded to direction and guidance provided by the project steering bodies including UNDA Secretariat and the national expert advisory groups composed of representatives of various ministries, international organizations, local academic institutions and NGOs.

(e) Identify operational and political / institutional problems and constraints that influenced the effective implementation of the project, and how the project tried to overcome these problems.

Stakeholder participation, cooperation and partnerships. The Evaluation will assess the effectiveness of mechanisms for information sharing and cooperation with other UNEP projects and programmes, external stakeholders and partners. The term stakeholder should be considered in the broadest sense, encompassing both project partners and target users (such as [list]) of project products. The TOC and stakeholder analysis should assist the evaluators in identifying the key stakeholders and their respective roles, capabilities and motivations in each step of the causal pathways from activities to achievement of outputs, outcomes and intermediate states towards impact. The assessment will look at three related and often overlapping processes: (1) information dissemination to and between stakeholders, (2) consultation with and between stakeholders, and (3) active engagement of stakeholders in project decision making and activities. The evaluation will specifically assess:

(a) Approach(es) and mechanisms used to identify and engage stakeholders (within and outside UNEP) in project design and at critical stages of project implementation. What were the strengths and weaknesses of these approaches with respect to the project's objectives and the stakeholders' motivations and capacities?

(b) How was the overall collaboration between different functional units of UNEP involved in the project? What coordination mechanisms were in place? Were the incentives for internal collaboration in UNEP adequate?

(c) Is the level of involvement of the Regional, Liaison and Out-posted Offices in project design, planning, decision-making and implementation of activities appropriate?

(d) Has the project made full use of opportunities for collaboration with other projects and programmes including opportunities not mentioned in the Project Document? Have complementarities been sought, synergies been optimized and duplications avoided?

(e) What was the achieved degree and effectiveness of collaboration and interactions between the various project partners and stakeholders during design and implementation of the project? This should be disaggregated for the main stakeholder groups identified in the inception report.

(f) To what extent has the project been able to take up opportunities for joint activities, pooling of resources and mutual learning with other organizations and networks? In particular, how useful are partnership mechanisms and initiatives (such as training workshops and national expert advisory groups) to build stronger coherence and collaboration between participating organisations?

(g) How did the relationship between the project and the collaborating partners (institutions and individual experts) develop? Which benefits stemmed from their involvement for project performance, for UNEP and for the stakeholders and partners themselves? Do the results of the project (strategic programmes and plans, monitoring and management systems, sub-regional agreements etc.) promote participation of stakeholders, including users, in environmental decision making?

Communication and public awareness. The evaluation will assess the effectiveness of any public awareness activities that were undertaken during the course of implementation of the project to communicate the project's objective, progress, outcomes and lessons. This should be disaggregated for the main stakeholder groups identified in the inception report. Did the project identify and make us of existing communication channels and networks used by key stakeholders? Did the project provide feedback channels?

Country ownership and driven-ness. The evaluation will assess the degree and effectiveness of involvement of government agencies in the project, in particular those involved in project execution and those participating in [insert whatever relevant e.g. project Steering Committee, partnership arrangements]:

(a) To what extent have Governments assumed responsibility for the project and provided adequate support to project execution, including the degree of cooperation received from the various public institutions involved in the project?

How and how well did the project stimulate country ownership of project outputs and outcomes?

[Any other project-specific questions]

Financial planning and management. Evaluation of financial planning requires assessment of the quality and effectiveness of financial planning and control of financial resources throughout the project's lifetime. The assessment will look at actual project costs by activities compared to budget

(variances), financial management (including disbursement issues), and co-financing. The evaluation will:

(a) Verify the application of proper standards (clarity, transparency, audit etc.) and timeliness of financial planning, management and reporting to ensure that sufficient and timely financial resources were available to the project and its partners;

(b) Assess other administrative processes such as recruitment of staff, procurement of goods and services (including consultants), preparation and negotiation of cooperation agreements etc. to the extent that these might have influenced project performance;

(c) The evaluation will provide a breakdown of final actual costs for the different project components (see tables in Annex 4).

(d) Describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective[83].

Analyse the effects on project performance of any irregularities in procurement, use of financial resources and human resource management, and the measures taken UNEP to prevent such irregularities in the future. Determine whether the measures taken were adequate.

Supervision, guidance and technical backstopping. The purpose of supervision is to verify the quality and timeliness of project execution in terms of finances, administration and achievement of outputs and outcomes, in order to identify and recommend ways to deal with problems which arise during project execution. Such problems may be related to project management but may also involve technical/institutional substantive issues in which UNEP has a major contribution to make.

The evaluators should assess the effectiveness of supervision, guidance and technical support provided by the different supervising/supporting bodies including:

(a) The adequacy of project supervision plans, inputs and processes;

The realism and candour of project reporting and the emphasis given to outcome monitoring (results-based project management);

How well did the different guidance and backstopping bodies play their role and how well did the guidance and backstopping mechanisms work? What were the strengths in guidance and backstopping and what were the limiting factors?

Monitoring and evaluation. The evaluation will include an assessment of the quality, application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The evaluation will assess how information generated by the M&E system during project implementation was used to adapt and improve project execution, achievement of outcomes and ensuring sustainability. M&E is assessed on three levels:

[83] Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector.

(a) *M&E Design*. The evaluators should use the following questions to help assess the M&E design aspects:

- Arrangements for monitoring: Did the project have a sound M&E plan to monitor results and track progress towards achieving project objectives? Have the responsibilities for M&E activities been clearly defined? Were the data sources and data collection instruments appropriate? Was the time frame for various M&E activities specified? Was the frequency of various monitoring activities specified and adequate?
- How well was the project logical framework (original and possible updates) designed as a planning and monitoring instrument?
- SMART-ness of indicators: Are there specific indicators in the logframe for each of the project objectives? Are the indicators measurable, attainable (realistic) and relevant to the objectives? Are the indicators time-bound?
- Adequacy of baseline information: To what extent has baseline information on performance indicators been collected and presented in a clear manner? Was the methodology for the baseline data collection explicit and reliable? For instance, was there adequate baseline information on pre-existing accessible information on global and regional environmental status and trends, and on the costs and benefits of different policy options for the different target audiences? Was there sufficient information about the assessment capacity of collaborating institutions and experts etc. to determine their training and technical support needs?
- To what extent did the project engage key stakeholders in the design and implementation of monitoring? Which stakeholders (from groups identified in the inception report) were involved? If any stakeholders were excluded, what was the reason for this?
- Arrangements for evaluation: Have specific targets been specified for project outputs? Has the desired level of achievement been specified for all indicators of objectives and outcomes? Were there adequate provisions in the legal instruments binding project partners to fully collaborate in evaluations?
- Budgeting and funding for M&E activities: Determine whether support for M&E was budgeted adequately and was funded in a timely fashion during implementation.

M&E Plan Implementation. The evaluation will verify that:

- the M&E system was operational and facilitated timely tracking of results and progress towards projects objectives throughout the project implementation period;
- Half-yearly Progress & Financial Reports were complete and accurate;

- the information provided by the M&E system was used during the project to improve project performance and to adapt to changing needs.

a. The Consultant' Team

For this evaluation, the evaluation team will consist of one independent Consultant. Details about the specific roles and responsibilities of the consultant are presented in Annex 1 of these TORs. The following expertise and experience is required:

- Evaluation of environmental projects
- Expertise in food security, institutional, environmental or development policy analysis (at least 7 years' experience).
- A higher degree in Economics or International Development or Food Security Policy
- Knowledge of the countries to be evaluated is preferred.

The Consultant will coordinate data collection and analysis, and the preparation of the main report for the evaluation. S/He will ensure that all evaluation criteria and questions are adequately covered.

By undersigning the service contract with UNEP/UNON, the consultant certifies that s/he has not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, s/he will not have any future interests (within six months after completion of the contract) with the project's executing or implementing units.

b. Evaluation Deliverables and Review Procedures

The consultant will prepare an **inception report** (see Annex 2(a) of TORs for Inception Report outline) containing a thorough review of the project context, project design quality, a draft reconstructed Theory of Change of the project, the evaluation framework, and a tentative evaluation schedule.

It is expected that a large portion of the desk review will be conducted during the inception phase. It will be important to acquire a good understanding of the project context, design and process at this stage. The review of design quality will cover the following aspects (see Annex 7 for the detailed project design assessment matrix):

- Strategic relevance of the project
- Preparation and readiness;
- Financial planning;
- M&E design;
- Complementarity with UNEP strategies and programmes;
- Sustainability considerations and measures planned to promote replication and up-scaling.

The inception report will present a draft, desk-based reconstructed Theory of Change of the project. It is vital to reconstruct the ToC *before* most of the data collection (review of progress reports, in-depth interviews, surveys etc.) is done, because the ToC will define which direct outcomes, drivers and assumptions of the project need to be assessed and measured – based on which indicators – to allow adequate data collection for the evaluation of project effectiveness, likelihood of impact and sustainability.

The inception report should include a stakeholder analysis identifying key stakeholders, networks and channels of communication. This information should be gathered from the Project document and discussion with the project team.

The evaluation framework will present in further detail the overall evaluation approach. It will specify for each evaluation question under the various criteria what the respective indicators and data sources will be. The evaluation framework should summarize the information available from project documentation against each of the main evaluation parameters. Any gaps in information should be identified and methods for additional data collection, verification and analysis should be specified. Evaluations/reviews of other large assessments can provide ideas about the most appropriate evaluation methods to be used.

Effective communication strategies help stakeholders understand the results and use the information for organisational learning and improvement. While the evaluation is expected to result in a comprehensive document, content is not always best shared in a long and detailed report; this is best presented in a synthesised form using any of a variety of creative and innovative methods. The evaluator is encouraged to make use of multimedia formats in the gathering of information e.g. video, photos, sound recordings. Together with the full report, the evaluator will be expected to produce a 2-page summary of key findings and lessons for future dissemination to a wider stakeholder base. (A general template for this will be provided by the Evaluation Manager)

The inception report will also present a tentative schedule for the overall evaluation process, including a draft programme for the country visit and tentative list of people/institutions to be interviewed.

The inception report will be submitted for review and approval by the Evaluation Office before the any further data collection and analysis is undertaken.

The main evaluation report should be brief (approximately 50 pages – excluding the executive summary and annexes), to the point and written in plain English. The report will follow the annotated Table of Contents outlined in Annex 2. It must explain the purpose of the evaluation, exactly what was evaluated and the methods used (with their limitations). The report will present evidence-based and balanced findings, consequent conclusions, lessons and recommendations, which will be cross-referenced to each other. The report should be presented in a way that makes the information accessible and comprehensible. Any dissident views in response to evaluation findings will be appended in footnote or annex as appropriate. To avoid repetitions in the report, the authors will use numbered paragraphs and make cross-references where possible.

Review of the draft evaluation report. The consultant will submit a zero draft report to the UNEP EO and revise the draft following the comments and suggestions made by the EO. Once a draft of

adequate quality has been accepted, the EO will share this first draft report with the Project Manager, who will alert the EO in case the report would contain any blatant factual errors. The Evaluation Office will then forward the first draft report to the other project stakeholders, in particular [list] for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. It is also very important that stakeholders provide feedback on the proposed recommendations and lessons. Comments would be expected within two weeks after the draft report has been shared. Any comments or responses to the draft report will be sent to the UNEP EO for collation. The EO will provide the comments to the evaluation team for consideration in preparing the final draft report, along with its own views.

The evaluation team will submit the final draft report no later than 2 weeks after reception of stakeholder comments. The team will prepare a **response to comments**, listing those comments not or only partially accepted by them that could therefore not or only partially be accommodated in the final report. They will explain why those comments have not or only partially been accepted, providing evidence as required. This response to comments will be shared by the EO with the interested stakeholders to ensure full transparency.

Submission of the final evaluation report. The final report shall be submitted by Email to the Head of the Evaluation Office. The Evaluation Office will finalize the report and share it with the interested Divisions and Sub-programme Coordinators in UNEP. The final evaluation report will be published on the UNEP Evaluation Office web-site www.unep.org/eou.

As per usual practice, the UNEP EO will prepare a **quality assessment** of the zero draft and final draft report, which is a tool for providing structured feedback to the evaluation consultant. The quality of the report will be assessed and rated against the criteria specified in Annex 3.

The UNEP Evaluation Office will assess the ratings in the final evaluation report based on a careful review of the evidence collated by the evaluation consultant and the internal consistency of the report. Where there are differences of opinion between the evaluator and UNEP Evaluation Office on project ratings, both viewpoints will be clearly presented in the final report. The UNEP Evaluation Office ratings will be considered the final ratings for the project.

At the end of the evaluation process, the Evaluation Office will prepare a Recommendations Implementation Plan in the format of a table to be completed and updated at regular intervals by the Project Manager. After reception of the Recommendations Implementation Plan, the Project Manager is expected to complete it and return it to the EO within one month. (S)he is expected to update the plan every six month until the end of the tracking period. As this is a Terminal Evaluation, the tracking period for implementation of recommendations will be 18 months, unless it is agreed to make this period shorter or longer as required for realistic implementation of all evaluation recommendations. Tracking points will be every six months after completion of the implementation plan.

c. Logistical arrangements

This Terminal Evaluation will be undertaken by one independent evaluation consultant contracted by the UNEP Evaluation Office. The consultant will work under the overall responsibility of the UNEP Evaluation Office and will consult with the EO on any procedural and methodological matters related

to the evaluation. It is, however, the consultant's individual responsibility to arrange for his/her travel, visa, obtain documentary evidence, plan meetings with stakeholders, organize online surveys, and any other logistical matters related to the assignment. The UNEP Project Manager and project team will, where possible, provide logistical support (introductions, meetings, site visits, etc.) allowing the consultant to conduct the evaluation as efficiently and independently as possible.

d. Schedule of the evaluation

Table 4 below presents the tentative schedule for the evaluation.

Table 4. Tentative schedule for the evaluation

Milestone	**Deadline***
Inception Mission – 2 days (Nairobi)	February 2015
Inception Report	February 2015
Evaluation Mission 1 (Uganda)	March 2015
Evaluation Mission 2 (India)	March 2015
Telephone interviews, surveys etc.	March 2015
Zero draft report	April 2015
Draft Report shared with project team	April 2015
Draft Report shared with stakeholders	April 2015
Final Report	Early May 2015

* The dates presented are tentative and are dependent on the duration of the contracting process and date of commissioning the assignment. At the inception phase, the consultant should define a more precise evaluation schedule together with the Evaluation Manager

ANNEX II. EVALUATION PROGRAM

The following table contains the list of project participants who participated in the evaluation in target countries (Uganda and India) using face to face and virtual communication. They were identified by the UNEP Project team as key implementing partners and EAG members whom the evaluation should prioritise from the list of 30 EAG members in India and over 50 EAG members in Uganda. Some stakeholders who were prioritised by the project team did not respond to the invitations by the consultant despite follow-up attempts. However the inputs and insights provided by the 10 stakeholders who responded provided adequate information and insights pertaining to the evaluation questions.[84]

EVALUATION PARTICIPANTS (UGANDA)				
No	NAME	TITLE	INSTITUTION	CONTACTS
1**	Clement Okia	Scientist and ICRAF Uganda Country Rep.	World Agroforestry Centre (ICRAF) Uganda Country Office	PO Box 26416, Kampala, Uganda Email: C.Okia@cgiar.org
2*	Grace Nangendo	GIS Specialist	Wildlife Conservation Society (WCS) Uganda Country Office	PO Box 7487, Kampala, Uganda Email:nangendo@alumni.itc.nl
3*	Naomi Karekaho	Public Relations Officer	NEMA, Uganda	info@nemaug.org
4*	Monique Akullo	Program Officer, NDSAP	NEMA, Kampala, Uganda	Email:makullo@nemaug.org; makullo@hotmail.com
5**	George Mutagubya	Communications Officer	NPA Government of Uganda	gmutagubya@npa.ug
EVALUATION PARTICIPANTS (INDIA)				
6**	Brajesh Jha (PhD)	Associate Professor	Agricultural Economics Unit, Institute of Economic Growth (IEG), Delhi University Enclave (N)	New Delhi-110007 India. Email: brajeshjha_99@yahoo.com; brajesh@iegindia.org
7*	Kaavya Varma	Sr. Associate	Green Indian States Trust (GIST) Advisory India	Email: kaavya.gist@gmail.com
8*	Lalit Kumar (PhD)	Assistant Professor	Department of Business Economics, Delhi University,	Email: lkumar1503@yahoo.co.in
9*	Madhu Verma (PhD)	Professor, Coordinator for Centre for Eco-Services Management	Indian Institute of Forest Management (IIFM)	Bhopal - 462 003, India Email: madhuver10@gmail.comSkype: verma.madhu10
10**	Devinder Sharma	Food and Trade Policy Analyst	Forum for Biotechnology and Food Security, Punjab India	hunger55@gmail.com
11	Kamal Vatta	Agricultural Economist, Director of Centres for International Projects Trust (CIPT).	Worked previously Punjab Agricultural University (PAU), Ludhiana for 15 years.	kamal@cipt.in kmlvatta@yahoo.com

*Notes: * The numbers of stars indicate the priority level of stakeholders indicated by the Project team, for inclusion in the evaluation. Most high priority stakeholders were seen, some were unavailable including INSEE- a major project partner.*

[84] See Evaluation Questions in the TOR below

ANNEX III. BIBLIOGRAPHY

The following documents were consulted as part of the desk review exercise and contributed towards the development of this inception report. In-depth review of these documents will be carried out as part of the main evaluation phase to contextualize and triangulate the findings from meetings and interviews with project implementers, partners and key stakeholders. This will help to better inform the findings and help develop practicable recommendations.

1. UNEP Project Documents

i. UNEP HQ: Terms of Reference (TOR) (2015) Terminal Evaluation of the UNDA 7th tranche funded UNEP project: "Capacity building in national planning for food security"

ii. Comprehensive Framework for Action (CFA) (July 2008); High-Level Task Force on the Global Food Security Crisis

iii. Millennium Ecosystem Assessment (MA) Report

iv. UNEP: Programmes of Work; UNEP Programmes of Work 2010-2011 and 2012-2013

v. UN Declaration on the Rights of Indigenous People

vi. UNEP Bali Strategic Plan (BSP)/UNEP BSP

vii. UNEP Medium-Term Strategy 2010-2013 and 2014-2017

viii. UNEP Medium-Term Strategy 2014-2017

ix. UNDAF: India 2008-2012 and 2013-2017

x. UNDAF Uganda 2010-2014

xi. Capacity-building in national planning for food security_10-06-14.pdf; Template for Project Revisions

xii. Extension request details by project (Rev 2)- Capacity building in national planning for food security-final

xiii. Project Brochure_draft_Food security project-fin_June 2013

xiv. Project's logical framework and its budget

xv. Revisions to the project (Project Document Supplements); ProDoc Amendment (2013)-Project Document Supplement-UNDA 7th Tranche-16-01-13

xvi. Annual Work Plans and Budgets or equivalent; SSAF-GIST (India), SSAF-ICRAF (Uganda), SSAF-IIFM (India), SSAF- INSEE (India), SSAF- NPA (Uganda) & SSAF- PAU (India)

xvii. Progress and financial reports; Progress Report-31 January 2012-food security-submitted, Progress Report-2013, Progress Report-2013-final

xviii. Project workshop reports; invitations, concept notes; participant lists;

xix. Contacts for evaluation_24-03-15-2-SUN CHO (UNEP),

xx. Sun Cho: workshop presentations, notes, minutes-,workshop reports, speech notes,

xxi. Comments on project progress reports by the project team

xxii. Project Terminal Report (draft if final version not available)

xxiii. UNEP Evaluation Manual

xxiv. UNEP Evaluation Policy

2. Partner documents (Source-UNEP HQ)
   i. Progress reports from collaborating partners: National Steering Committees' meeting documents; agendas, meeting minutes, summary reports
   ii. Other relevant project reports such as synthesis reports from the international consultants (e.g. Harpinder Sandhu)
   iii. GIST Advisory (India) Training modules(3)
   iv. Pilot studies in India & Uganda
   v. Outreach Strategies and Materials: India & Uganda; Media & Outreach- Stakeholders & Partners info; Outreach of the Project(pdf) & Outreach_UNEP HP Article_rev, Punjab India - GIST documentary film on trade-offs associated with agricultural production, Project website: http://www.ese-valuation.org/ platform for exchange of information between pilot countries
   vi. National advisory group lists: India & Uganda
   vii. Trade-off analysis: India & Uganda

3. Other relevant documents: evaluations/ reviews of similar projects
   i. Millennium Ecosystem Agricultural Organization &World Resources Institute "Ecosystems and Human Well-Being Synthesis"
   i. UNEP, 2006Terminal Evaluation of the UNEP/GEF Project: "Millennium Ecosystem Assessment: (September 2006)
   ii. UNEP, UNDP, FAO: 'Rapid Response Assessment Report on the World Food Crisis'
   iii. UN Common Understanding on Human Rights Based Approach (HRBA) link: http://hrbaportal.org/the-human-rights-based-approach-to-development-cooperation-towards-a-common-understanding-among-un-agencies
   iv. UNEP: The Environmental Food Crisis: the environment's role in averting future food crisis link: http://www.grida.no/files/publications/FoodCrisis_lores.pdf
   v. *Science* (12 February 2010): Food security: The Challenge of Feeding 9 Billion People.
   vi. UN Millennium Development Goals (MDGs) and SDGs (Sustainable Development Goals) https://sustainabledevelopment.un.org/index.php?menu=1565
   vii. OECD/DAC: The *DAC Quality Standards* for Development Evaluation
   viii. Various websites on the topic.

ANNEX IV. PROJECT COSTS AND CO-FINANCING TABLES

Project Costs

Component/sub-component/output	Estimated cost at design (USD)	Actual Cost (USD)	Expenditure ratio (actual/planned)
	710,000	657,217[85]	0.96

Co-financing

Co-financing (Type/Source)	UNEP own Financing (USUSD1,000)		Government (USUSD1,000)		Other* (USUSD1,000)		Total (USUSD1,000)		Total Disbursed (USUSD1,000)
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	
– Grants	710	710	0	0	0	0	0	0	0
– Loans	0	0	0	0	0	0	0	0	0
– Credits	0	0	0	0	0	0	0	0	0
– Equity investments	0	0	0	0	0	0	0	0	0
– In-kind support	0	0	0	0	0	0	0	0	0
– Other (*) - -	0	0	0	0	0	0	0	0	0
Totals	**710**	**710**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

* This refers to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

[85] This cost reflects the project's expenditure so far, as of January 2015 which does not include the cost of the terminal evaluation.

ANNEX V. SEMI-STRUCTURED INTERVIEW GUIDE

A survey questionnaire was prepared and shared on email by the evaluation consultant with key project stakeholders who were unavailable for in-person, face to face interviews. This survey questionnaire was also used as an interview guide for Skype interviews conducted with some priority stakeholders of the Project.

Final Evaluation: UNDA/UNEP: Capacity Building in National Planning for Food Security Project

6th July 2015

General Survey Questionnaire (All India Stakeholders)

A. Individual Profile

i.	**Country**	
ii.	**Interviewee Name/s (First, Last)**	
iii.	**Unique Interview number**	
iv.	**Organization**	
v.	**Position Title**	
vi.	**Contact Emails/phone/Skype address**	
vii.	**Interviewer name**	**Maureen Wang'ati -Gnagbo**
viii.	**Date of interview**	

B. General Questions

Q1. Please describe your current position and role within your organization/company/institution

Q2. To what extent and in what ways are you or your organization involved in policy making at the national or local levels in India?

Q3. What is your organization's experience in using Environmental Management Systems Approach for informing food security policies in India?

C. Specific Questions

Q4. How did you hear about the UNDA funded Capacity Building in National Planning and Food Security project funded by UNEP and for what period (start date end date) were you engaged?

Q5. What prompted your interest/ decision to participate in this capacity building project?

Q6. How were you engaged and what activities did you undertake on behalf of UNDA/UNEP Capacity Building in National Planning Project in India?

Q5. To what extent did the project contribute towards increasing knowledge about the trade-offs between food production and food security through ecosystem management approaches?

Q6. How has this knowledge been used to influence food security policy so far in India?

Q7. How relevant/appropriate did you find the capacity building initiatives of the project in terms of influencing government policy on food security?

Q8. What changes in skills, knowledge, attitudes, behavior were evidenced with and amongst stakeholders following the capacity building and training sessions and other project activities?

Q9. Did any policy dialogues on tradeoffs between food security and food production using EMA approaches take place as far as you know? Were any networks formed as a result that you are aware about?

Q10 Are there any distinguished champions (key actors involved) in the EMA approach in India as a result of the project's activities with stakeholder institutions and organizations in India?

Q11. Is there any evidence of organizational, institutional or systemic change evidenced as a result of the project's activities with stakeholder institutions: (academia, research, government, experts) in India?

Q12. What are your views concerning the effectiveness of project management and coordination of this project by UNEP?

Q13. To what extent was the project budget sufficient for supporting your activities? What if any cost effectiveness measures did you implement with the available financial resources?

Q14. What if any challenges did you face while implementing activities on behalf of this project?

Q15. Overall, how relevant do you find the project design and strategy? (see theory of change below)

- (Project outputs: *pilot studies on tradeoffs between food security and food production; modalities for close collaboration; evaluation of findings of trade-off analysis; conclusions on recommendations and guidelines; and training workshops on trade-off analysis*)
- (Expected outcomes: *increased knowledge on tradeoffs between food security and food production)*
- *(Long term impacts: Integration of environmental issues into development and agricultural policy and national planning in Punjab State aligned with EMA as well as influence to the wider community in terms of accomplishment of MDGs 1 and 7.)*

Q16. What external factors outside of the project's control influenced achievement or sustainability of results: outcomes and impacts?

Q17. What if any risks and/or key assumptions were well considered- or not by the project?

Q18. Any suggestions on the way forward for UNEP following this initiative in terms of promoting the integration of EMA for enhanced food security in India in a sustainable way?

Q19. Any general comments on the project or other views/opinions?

Thank you for your time. Please note that your views are confidential and will only be shared as part of the wider stakeholders' views to protect the identity of respondents. Kindly email your completed questionnaire to the evaluation consultant: Mrs. Maureen Wang'ati Gnagbo on (mwangati@gmail.com) by 14th July 2015 or at your earliest opportunity for consideration in the evaluation report.

ANNEX VI. CONSULTANT'S RÉSUMÉ BRIEF

Maureen Wang'ati-Gnagbo: Evaluation Consultant

Maureen Wang'ati-Gnagbo is a seasoned international consultant with a B.Sc in Human Ecology and M.Ed in Programme Monitoring and Evaluation from the University of Minnesota, U.S.A. She is a senior Monitoring and Evaluation (M&E) specialist with over 20 years of experience in the field, leading teams in Africa, the Pacific and in Caribbean countries on behalf of local and international development agencies including the UN. She manages multi-country teams on international case studies, programme strategic planning, mid-term and end-term reviews, and high level evaluations involving multi-disciplinary and multi-cultural professionals in Africa. Maureen is an experienced trainer in Results-Based Methods including Outcome Mapping, Most Significant Change, and in programme review and reflection exercises. She works at Measure Africa, a private monitoring and evaluation consultancy firm based in Nairobi, Kenya which she founded and currently directs.

In collaboration with the International institute for Rural Reconstruction (IIRR), Measure Africa co-authored a book on Outcome Mapping titled: "*Outcome Mapping- Reflecting and Learning from Applications in Eastern Africa"* 2012. Maureen is a founding member of PIMANET, the African Evaluation Association, (AfREA), the African Gender Network (AGDEN) and the Evaluation Society of Kenya. She has been a member of the European Evaluation Society (EES) and the American Evaluation Association. She is passionate and committed to international development and has specific expertise in monitoring and evaluation of projects and programmes in the fields of environmental management, climate change, human rights, politics, governance, gender and others. She employs a pragmatic approach that seeks to empower and enlighten development programmes with relevant information and knowledge. This helps them measure and report on their progress and results achieved towards meeting their programmatic mandate.

ANNEX VII. STAKEHOLDER COMMENTS ON THE DRAFT EVALUATION REPORT

This section identifies the stakeholder comments that were not fully integrated in the final evaluation report. The table below describes the comments provided by stakeholders and evaluation consultant's/evaluation office responds.

Section in the final report	Stakeholder comment[86]	Consultant respond/action
Paragraph 9 *(paragraphs 51 and 52)*	The stakeholder engagement and workshop participation has been 50% women/men.	The text has been maintained as is. A sample participant list at a function in Delhi provided by the EO shows that more male than female participants were in attendance. This is consistent with the EO's assessment that confirms that participation by gender was not 50/50. The consultant agrees that it is difficult to verify the sex of those with Dr. titles. In order to accurately substantiate gender equity and mainstreaming by the project, appropriate M&E tools were required to be designed to systematically selection and include equal numbers of men and women in all project activities. To avoid controversies on this issue, the original text has been maintained as currently worded in the report.
Paragraph 67	Stakeholders considered that the framework for ecosystem analysis was actually quite thorough and detailed, it was provided by the Indian Institution of Forest Management, an organ of the Ministry of Environment and Forests, Government of India. In terms of the existing data, the stakeholders considered the data gaps were not so substantial that were limiting the study, since there was enough data gathering on trade-offs by the Punjab university which was made available to the project. The conclusions were also validated by the EAG and there was further validation on the ground by means of "ground truthing" carried out by the farmers.	This paragraph has been maintained as originally stated in the report. A key finding of the report based on interviews with project partners and scientists was the severe, time series data gaps (i.e. Historic data dating back to at least 70 years which is required to conduct accurate impact assessment of food production practices using EMAs). The consultant agrees with the acknowledgement of time series data being available at PAU. However according to the scientists, this data is insufficient as historically it only dates back about 30 years. EMA data has not been traditionally captured by PAU, this is a newer development. In my assessment therefore, any data/information with severe gaps as reported by the partners, may not be helpful in decision-making. It would only serve as lesson for future improvement.
Paragraph 112	Additional excel file with financial figures was provided by the project	This paragraph has been retained as originally written. The financial tracker, provided by the project, also refers

[86] Wording modified by the EO

		to staff travel, fellowships, etc. which are input level rather than output level expenditures. These are not very useful for the terminal evaluation that is interested in measuring outputs by higher level results.
Paragraph 122	Survey and participant list of the final workshop was provided as an extra evidence for uptake of the project	This has been retained as used in the report. Information from one event is insufficient to generate plausible conclusions or generalizable recommendations.
Lesson 4	Additional documents from the project workshops were provided for evidence that high level participants will take some important lessons learned from the project and workshop.	This lesson has been retained as originally stated. As stated previously above, information from a single event or a few unsystematic events cannot be used to accurately produce generalizable conclusions about the project.
Paragraph 67	Stakeholders consider that the statement fails to capture the value of the tradeoff analysis as a very important first step in supporting evidence-based decision making. The available data provided useful indications and which gaps need to be addressed to refine the estimates.	Apart from the severe time series data gaps, the findings suggest that there was lack of a comprehensive framework for ESS. However the consultant agrees in principle with the suggestion as an opportunity for learning and has incorporated the value of trade off analysis as suggested, into the Executive Summary paragraph (viii) and in paragraph 67.
n/a	For Uganda a key data gap is testing the scalability of the observations to be relevant to areas with different agro-ecological conditions.	EO: this comment has been taken into account in the recommendations and lessons learned sections.
Final stakeholder comments (June 2016):		
Section in the final report	**Stakeholder comment[87]**	**UNEP Evaluation Office respond/action**
Paragraph xi (Executive summary)	Based on the project team views, the evaluator (independent consultant) did not create the best impression on the stakeholders (in the field) due to delayed schedules. The interviews took place and the data was collected a long time after the end of the project. Thus stakeholder responses may not be completely accurate.	Interviews are a key source of information and will be considered as a credible source. In addition, EO hasn't received any evidence of an outreach strategy (or other systematic plan to disseminate the project findings) which was one of the planned outputs. This aligns with these findings in the paragraph xi.
Paragraphs xi, xii, and xvi *(Effectiveness)*	Requested by the project team to elaborate explanations on paragraphs xi and xii, which seem inconsistent with paragraph xvi. If pilot studies were highly effective and if lessons are	The overall MS rating for Effectiveness is based on 3 sub-criteria (see Table 6 for details) out of which the achievement of direct outcomes was rated as Satisfactory and other two concerning formal project objectives and likelihood of impact as 'Moderately Satisfactory'.

[87] Wording modified by the EO

	being incorporated the final rating should be higher than 'Moderately Satisfactory'.	Considering relatively low sustainability rating of the project EO agrees with this rating. (As also elaborated in these paragraphs, progress in Uganda was evaluated to be satisfactory, but the overall rating looks at the whole project, including India).
Paragraphs 117,118 and xx *(M&E)*	Project team disagrees with Moderately Unsatisfactory rating of M&E. This is based on the views that project produced all the reports based the UNEP/donor requirements. It is not project's accountability to produce additional reports beyond requirements. Also Mid-term review (MTR) was viewed as unnecessary and time consuming exercise for such relatively small project. The decision not to conduct a MTR is based on the UNDA protocol, and project is bound by those timelines and funding.	EO rating on M&E was revised to reflect these views. M&E implementation was rated as Moderately Satisfactory by EO (the overall M&E rating remains as 'Moderately Unsatisfactory') based on the compliance with the minimum M&E requirements. Mid-term review and mid-term evaluation are not the same thing. There are several ways of conducting a review that will assess progress, identify challenges and need for revisions in targets or activities. EO would like to note that this could be an internal process among key project partners (as part of a steering committee or similar structure). The findings indicate that the project would have benefitted from a review process.
Paragraph 119	The project team considers that it is not fair to penalize the project for not implementing Theory of Change (ToC) approach as it was not a requirement at the time of the project development. The project review committee (PRC) and UNDA revision did not specify it or even recommend it.	ToC approach is recommended by the evaluation.
Paragraph 120	The project team notes that this paragraph explains the problems during the evaluation process. It is considered that the evaluation process should have been improved and probably had a negative outcome on the results of the evaluation (stakeholders forgetting what they were being asked about and not being positively receptive to the evaluator's questions).	All evaluations have limitations. These limitations need to be explicitly presented in the report (as also done here in paragraphs 10-12, page 23) and addressed during the evaluation process.

ANNEX VIII. QUALITY ASSESSMENT OF THE EVALUATION REPORT

Evaluation Title:

Terminal Evaluation of the UNDA 7th Tranche funded UNEP project "Capacity Building in National Planning for Food Security" (UNEP PIMS ID 01582- IMIS Number 1574)

All UNEP evaluations are subject to a quality assessment by the Evaluation Office. The quality assessment is used as a tool for providing structured feedback to the evaluation consultants. *The draft report in this case implies to the report version commented by the UNEP Evaluation Office and shared with the evaluation consultant 15/9/2015.*

The quality of both the draft and final evaluation report is assessed and rated against the following criteria:

	UNEP Evaluation Office Comments	Draft Report Rating	Final Report Rating
Substantive report quality criteria			
A. Quality of the Executive Summary: Does the executive summary present the main findings of the report for each evaluation criterion and a good summary of recommendations and lessons learned? (Executive Summary not required for zero draft)	Draft report: n/a Final report: The main findings, recommendations and lessons are presented.	n/a	5
B. Project context and project description: Does the report present an up-to-date description of the socio-economic, political, institutional and environmental context of the project, including the issues that the project is trying to address, their root causes and consequences on the environment and human well-being? Are any changes since the time of project design highlighted? Is all essential information about the project clearly presented in the report (objectives, target groups, institutional arrangements, budget, changes in design since approval etc.)?	Draft report: The context and purpose of the project were described. The sections on milestones and budget were lacking clarity and some references needed clarification. Final report: Relatively comprehensive context description available. The comments provided by EO during the draft review process were integrated in the final report.	4	5
C. Strategic relevance: Does the report present a well-reasoned, complete and evidence-based assessment of strategic relevance of the intervention in terms of relevance of the project to global, regional and national environmental	Draft report: Many aspects of relevance were mentioned in the draft report (SSC, Bali, and Gender). Nevertheless these could have been better articulated to the point. Alignment with	2	4

issues and needs, and UNEP strategies and programmes?	UNEP MTS and related EAs was not clear. Global and regional priorities were not well presented (global and UN aspects could be discussed together), UNDAF and/or other relevant country level strategies should had been discussed here. Final report: The final report covers the UNEP MTS and other aspects sufficiently.		
D. Achievement of outputs: Does the report present a well-reasoned, complete and evidence-based assessment of outputs delivered by the intervention (including their quality)?	Draft report: The log-frame outputs (or RTOC outputs) were not systematically covered in the draft report. The section provided contradictory information about the completion of pilot studies in India (compared to latter sections in the report). Draft report did not provide proper analysis or articulate clearly the achievement of outputs or related indicators. Final report: The final report provides a systematic and sufficient presentation of achievement of project outputs.	2	5
E. Presentation of Theory of Change: Is the Theory of Change of the intervention clearly presented? Are causal pathways logical and complete (including drivers, assumptions and key actors)?	Draft report: Relevant outputs missing from the diagram and narrative. All the drivers and assumptions should be analysed and linked with relevant phases of the impact pathways (some might apply to all phases of the RTOC but very unlikely that all are equally affecting at all stages) Final report: Sufficient presentation of the TOC.	2	5
F. Effectiveness - Attainment of project objectives and results: Does the report present a well-reasoned, complete and evidence-based assessment of the achievement of the relevant outcomes and project objectives?	Draft report: Some acceptable analysis to what extent the project activities/outputs are likely to support in achieving the outcome level results. As the output analysis was a bit weak it appeared to be difficult to create further linkages to outcomes. Final report: The provided analysis and evidence is sufficient.	4	5
G. Sustainability and replication: Does the report present a well-reasoned and evidence-based assessment of sustainability of outcomes and replication / catalytic effects?	Draft report: This section did not fully respond to the questions specified in the TOR. Final report: The TOR questions are mostly addressed. Satisfactory reasoning provided.	3	4
H. Efficiency: Does the report present a well-reasoned, complete and evidence-	Draft report: The section on timeliness and delays of the project was sufficiently	2	4

	based assessment of efficiency? Does the report present any comparison with similar interventions?	covered. Overall the analysis in the draft report did not respond to the question specified in the TOR. Final report: The factors limiting efficiency were sufficiently elaborated.		
I.	Factors affecting project performance: Does the report present a well-reasoned, complete and evidence-based assessment of all factors affecting project performance? In particular, does the report include the actual project costs (total and per activity) and actual co-financing used; and an assessment of the quality of the project M&E system and its use for project management?	Draft report: Most of the sections did not respond to the TOR questions. Several aspects presented in the draft report required further elaboration, evidence and editing. Final report: Report covers the TOR questions in a satisfactory manner.	2	4
J.	Quality of the conclusions: Do the conclusions highlight the main strengths and weaknesses of the project, and connect those in a compelling story line?	Draft report: N/A Final report: The conclusions are sufficient.	n/a	4
K.	Quality and utility of the recommendations: Are recommendations based on explicit evaluation findings? Do recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?)'. Can they be implemented?	Draft report: Recommendations presented in the report are built around a new project in the target countries (India and Uganda). Utility of the recommendations depends on the development of a follow-up project. Final report: Same comment as in the draft report stage. Recommendations could be considered when developing any EMA/food security related project in other target countries. As there the UNEP team is not planning to implement a follow-up project India or Uganda these recommendations are not directly applicable. EO considers most of these suggestions as lessons learned to be applied in other similar project.	4	4
L.	Quality and utility of the lessons: Are lessons based on explicit evaluation findings? Do they suggest prescriptive action? Do they specify in which contexts they are applicable?	Draft report: Reformulation was suggested by the EO. Final report: The lessons are valuable observations that can be taken into account in similar UNEP projects.	5	5
Report structure quality criteria				
M.	Structure and clarity of the report: Does the report structure follow EO guidelines? Are all requested Annexes included?	Draft report: The evaluation report template was utilized. This ensured that all the aspects are covered. Final report: The report follows the required format. Some of the annexes required editing by the EO. EO also removed one annex which presented an out-dated	4	5

	evaluation rating table.		
N. Evaluation methods and information sources: Are evaluation methods and information sources clearly described? Are data collection methods, the triangulation / verification approach, details of stakeholder consultations provided? Are the limitations of evaluation methods and information sources described?	Draft report: Limitations in terms of credibility in presenting the findings together with the evidence. Final report: The evaluation methods and sources are described. Limitations of the evaluation are sufficiently described.	3	5
O. Quality of writing: Was the report well written? (clear English language and grammar)	Draft report: The draft report consisted of many long and complicated sentences that could cause the reader to lose track of reasoning. Final report: The final report submitted by the consultant was written with clear English language and the language/articulation related challenges identified in the draft report stage were mainly fixed.	3	5
P. Report formatting: Does the report follow EO guidelines using headings, numbered paragraphs etc.	Draft report: To some extent. The heading and paragraph numbering were not correctly done. Final report: The overall formatting was neat and meeting most of the EO requirements. The EO finalized the report formatting in terms of heading numbering.	3	5
	OVERALL REPORT QUALITY RATING	**3.1**	**4.6**

The quality of the evaluation process is assessed at the end of the evaluation and rated against the following criteria:

	UNEP Evaluation Office Comments	Rating
Evaluation process quality criteria		
Q. Preparation: Was the evaluation budget agreed and approved by the EO? Was inception report delivered and approved prior to commencing any travel?	Yes	6
R. Timeliness: Was a TE initiated within the period of six months before or after project completion? Was an MTE initiated within a six month period prior to the project's mid-point? Were all deadlines set in the ToR respected?	Evaluation process faced several delays.	2
S. Project's support: Did the project make available all required documents? Was adequate support provided to the	To large extent yes.	4

	evaluator(s) in planning and conducting evaluation missions?		
T.	Recommendations: Was an implementation plan for the evaluation recommendations prepared? Was the implementation plan adequately communicated to the project?	Recommendations and implementation plan was prepared and communicated to the project.	5
U.	Quality assurance: Was the evaluation peer-reviewed? Was the quality of the draft report checked by the evaluation manager and peer reviewer prior to dissemination to stakeholders for comments? Did EO complete an assessment of the quality of the final report?	Three evaluation officers participated in the review and quality assurance process.	6
V.	Transparency: Were the draft ToR and evaluation report circulated to all key stakeholders for comments? Was the draft evaluation report sent directly to EO? Were all comments to the draft evaluation report sent directly to the EO and did EO share all comments with the commentators? Did the evaluator(s) prepare a response to all comments?	The draft evaluation report was circulated to the key stakeholders but not all. EO consolidated the stakeholder comments and shared those with the consultant and the project team. The consultant prepared a response to all comments.	4
W.	Participatory approach: Was close communication to the EO and project maintained throughout the evaluation? Were evaluation findings, lessons and recommendations adequately communicated?	Yes.	5
X.	Independence: Was the final selection of the evaluator(s) made by EO? Were possible conflicts of interest of the selected evaluator(s) appraised?	The selection process was independent.	6
		OVERALL PROCESS RATING	**4.8**

Rating system for quality of evaluation reports:
A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1. The overall quality of the evaluation report is calculated by taking the mean score of all rated quality criteria.