

# Closure Stage Quality Assurance Report

**Form Status: Approved**

<b>Overall Rating:</b>	Satisfactory
<b>Decision:</b>	
<b>Portfolio/Project Number:</b>	00086820
<b>Portfolio/Project Title:</b>	Secondary Copper Full-size
<b>Portfolio/Project Date:</b>	2016-10-01 / 2022-06-15

**Strategic**

**Quality Rating: Exemplary**

1. Did the project pro-actively identified changes to the external environment and incorporated them into the project strategy?

- ☒ 3: *The project team identified relevant changes in the external environment that may present new opportunities or threats to the project's ability to achieve its objectives, assumptions were tested to determine if the project's strategy was valid. There is some evidence that the project board considered the implications, and documented the changes needed to the project in response. (all must be true)*
- ☐ 2: The project team identified relevant changes in the external environment that may present new opportunities or threats to the project's ability to achieve its objectives. There is some evidence that the project board discussed this, but relevant changes did not fully integrate in the project. (both must be true)
- ☐ 1: The project team considered relevant changes in the external environment since implementation began, but there is no evidence that the project team considered these changes to the project as a result.

**Evidence:**

Refer to the Strategy of Prodoc.

**List of Uploaded Documents**

#	File Name	Modified By	Modified On
1	UNDPPIMS5383_ChinaSecondaryCopperProduction_Prodoc_Final20160523_11746_301 (https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/UNDPPIMS5383_ChinaSecondaryCopperProduction_Prodoc_Final20160523_11746_301.docx)	jingjing.wang@undp.org	2/16/2022 7:14:00 AM

2. Was the project aligned with the thematic focus of the Strategic Plan?

- ☒ 3: The project responded to at least one of the development settings as specified in the Strategic Plan (SP) and adopted at least one Signature Solution .The project's RRF included all the relevant SP output indicators. (all must be true)
- ☐ 2: The project responded to at least one of the developments settings1 as specified in the Strategic Plan. The project's RRF included at least one SP output indicator, if relevant. (both must be true)
- ☐ 1: While the project may have responded to a partner's identified need, this need falls outside of the UNDP Strategic Plan. Also select this option if none of the relevant SP indicators are included in the RRF.

**Evidence:**

This project is aligned with SP Output 2.1.1 Low emission and climate resilient objectives addressed in national, sub-national and sectoral development plans and policies to promote economic diversification and green growth.

**List of Uploaded Documents**

#	File Name	Modified By	Modified On
No documents available.			

**Relevant****Quality Rating: Satisfactory**

3. Were the project's targeted groups systematically identified and engaged, with a priority focus on the discriminated and marginalized, to ensure the project remained relevant for them?

- ☐ 3: Systematic and structured feedback was collected over the project duration from a representative sample of beneficiaries, with a priority focus on the discriminated and marginalized, as part of the project's monitoring system. Representatives from the targeted groups were active members of the project's governance mechanism (i.e., the project board or equivalent) and there is credible evidence that their feedback informs project decision making. (all must be true)
- ☒ 2: Targeted groups were engaged in implementation and monitoring, with a priority focus on the discriminated and marginalized. Beneficiary feedback, which may be anecdotal, was collected regularly to ensure the project addressed local priorities. This information was used to inform project decision making. (all must be true to select this option)
- ☐ 1: Some beneficiary feedback may have been collected, but this information did not inform project decision making. This option should also be selected if no beneficiary feedback was collected
- ☐ Not Applicable

**Evidence:**

Yes, the project completed the establishment of a multi-stakeholder platform allowing for regular exchanges and coordination of activities between the different stakeholders.

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No documents available.			

4. Did the project generate knowledge, and lessons learned (i.e., what has worked and what has not) and has this knowledge informed management decisions to ensure the continued relevance of the project towards its stated objectives, the quality of its outputs and the management of risk?

- ☐ 3: Knowledge and lessons learned from internal or external sources (gained, for example, from Peer Assists, After Action Reviews or Lessons Learned Workshops) backed by credible evidence from evaluation, corporate policies/strategies, analysis and monitoring were discussed in project board meetings and reflected in the minutes. There is clear evidence that changes were made to the project to ensure its continued relevance. (both must be true)
- ☒ 2: Knowledge and lessons learned backed by relatively limited evidence, drawn mainly from within the project, were considered by the project team. There is some evidence that changes were made to the project as a result to ensure its continued relevance. (both must be true)
- ☐ 1: There is limited or no evidence that knowledge and lessons learned were collected by the project team. There is little or no evidence that this informed project decision making.

**Evidence:**

The knowledge and lessons learned were recorded and updated on PPR and PIR on an annual basis.

**List of Uploaded Documents**

#	File Name	Modified By	Modified On
1	R1-94023-PPR-2021_11746_304 ( <a href="https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/R1-94023-PPR-2021_11746_304.docx">https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/R1-94023-PPR-2021_11746_304.docx</a> )	jingjing.wang@undp.org	2/22/2022 3:24:00 AM
2	2020-GEF-PIR-PIMS5383-GEFID6966_11746_304 ( <a href="https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/2020-GEF-PIR-PIMS5383-GEFID6966_11746_304.docx">https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/2020-GEF-PIR-PIMS5383-GEFID6966_11746_304.docx</a> )	jingjing.wang@undp.org	2/22/2022 3:25:00 AM
3	PublicationScienceDirect_Stateofartcontrolof dioxins-UPOPs in the 2nd copper-SCPolicymaking_11746_304 ( <a href="https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/PublicationScienceDirect_Stateofartcontrolof dioxins-UPOPs in the 2nd copper-SCPolicymaking_11746_304.pdf">https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/PublicationScienceDirect_Stateofartcontrolof dioxins-UPOPs in the 2nd copper-SCPolicymaking_11746_304.pdf</a> )	jingjing.wang@undp.org	2/22/2022 3:30:00 AM
4	从业人员画册8-18_11746_304 ( <a href="https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/从业人员画册8-18_11746_304.pdf">https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/从业人员画册8-18_11746_304.pdf</a> )	jingjing.wang@undp.org	2/22/2022 3:31:00 AM

5. Was the project sufficiently at scale, or is there potential to scale up in the future, to meaningfully contribute to development change?

- ☒ 3: *There was credible evidence that the project reached sufficient number of beneficiaries (either directly through significant coverage of target groups, or indirectly, through policy change) to meaningfully contribute to development change.*
- ☐ 2: While the project was not considered at scale, there are explicit plans in place to scale up the project in the future (e.g. by extending its coverage or using project results to advocate for policy change).
- ☐ 1: The project was not at scale, and there are no plans to scale up the project in the future.

**Evidence:**

At the project closure, total 8 standards related to emission control were promulgated, with 2 additional standards under development. Based on the standards, certificates were issued for more than 400 companies. The two demonstration companies achieved the total reduction of dioxin emissions of 46.20 g TEQ (43.48 g TEQ from flue gas emissions and 2.72 g TEQ from residues emissions) and exceeded thus the pre-set objective of 11.88g TEQ.

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No documents available.			

**Principled****Quality Rating: Satisfactory**

6. Were the project's measures (through outputs, activities, indicators) to address gender inequalities and empower women relevant and produced the intended effect? If not, evidence-based adjustments and changes were made.

- ☐ 3: The project team gathered data and evidence through project monitoring on the relevance of the measures to address gender inequalities and empower women. Analysis of data and evidence were used to inform adjustments and changes, as appropriate. (both must be true)
- ☒ *2: The project team had some data and evidence on the relevance of the measures to address gender inequalities and empower women. There is evidence that at least some adjustments were made, as appropriate. (both must be true)*
- ☐ 1: The project team had limited or no evidence on the relevance of measures to address gender inequalities and empowering women. No evidence of adjustments and/or changes made. This option should also be selected if the project has no measures to address gender inequalities and empower women relevant to the project results and activities.

**Evidence:**

Gender mainstreaming comprises two overarching interventions – awareness-raising and multi-stakeholders participation for developing measures for reduced exposure to dioxins and heavy metal emissions during the secondary copper smelting process, including the conduct of periodic occupational medical examinations to minimize adverse impact on human health.

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No documents available.			

7. Were social and environmental impacts and risks successfully managed and monitored?

- ☐ 3: Social and environmental risks were tracked in the risk log. Appropriate assessments conducted where required (i.e., Environmental and Social Impact Assessment (ESIA) for High risk projects and some level of social and environmental assessment for Moderate risk projects as identified through SESP). Relevant management plan(s) developed for identified risks through consultative process and implemented, resourced, and monitored. Risks effectively managed or mitigated. If there is a substantive change to the project or change in context that affects risk levels, the SESP was updated to reflect these changes. (all must be true)
- ☒ 2: *Social and environmental risks were tracked in the risk log. Appropriate assessments conducted where required (i.e., Environmental and Social Impact Assessment (ESIA) for High risk projects and some level of social and environmental assessment for Moderate risk projects as identified through SESP). Relevant management plan(s) developed, implemented and monitored for identified risks. OR project was categorized as Low risk through the SESP.*
- ☐ 1: Social and environmental risks were tracked in the risk log. For projects categorized as High or Moderate Risk, there was no evidence that social and environmental assessments completed and/or management plans or measures development, implemented or monitored. There are substantive changes to the project or changes in the context but SESP was not updated. (any may be true)

**Evidence:**

The risk identification at the project inception as well as the risk reporting and management during the implementation were performed thoroughly and critical risks were monitored and reported in the PIRs

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No documents available.			

8. Were grievance mechanisms available to project-affected people and were grievances (if any) addressed to ensure any perceived harm was effectively mitigated?

- ☐ 3: Project-affected people actively informed of UNDP's Corporate Accountability Mechanism (SRM/SECU) and how to access it. If the project was categorized as High or Moderate Risk through the SESP, a project -level grievance mechanism was in place and project affected people informed. If grievances were received, they were effectively addressed in accordance with SRM Guidance. (all must be true)
- ☒ 2: *Project-affected people informed of UNDP's Corporate Accountability Mechanism and how to access it. If the project was categorized as High Risk through the SESP, a project -level grievance mechanism was in place and project affected people informed. If grievances were received, they were responded to but faced challenges in arriving at a resolution.*
- ☐ 1: Project-affected people was not informed of UNDP's Corporate Accountability Mechanism. If grievances were received, they were not responded to. (any may be true)

**Evidence:**

This project was categorized as Low risk through SE SP. The key project stakeholders have been identified and consulted, and a stakeholder Engagement plan had been developed during the project preparation phase. At the project level, the project meetings (PSC, progress meetings) ensure that project-affected people have an opportunity to express their views on a project's potential risks and impacts. Also, the project's relevant information has been disclosed on FE CO's website, and in a form and language understandable to affected persons and other stakeholders so they can understand potential project-related opportunities and risks.

**List of Uploaded Documents**

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No documents available.			

## Management &amp; Monitoring

Quality Rating: **Satisfactory**

9. Was the project's M&amp;E Plan adequately implemented?

- ☐ 3: The project had a comprehensive and costed M&E plan. Baselines, targets and milestones were fully populated. Progress data against indicators in the project's RRF was reported regularly using credible data sources and collected according to the frequency stated in the Plan, including sex disaggregated data as relevant. Any evaluations conducted, if relevant, fully meet decentralized evaluation standards, including gender UNEG standards. Lessons learned, included during evaluations and/or After-Action Reviews, were used to take corrective actions when necessary. (all must be true)
- ☒ 2: *The project costed M&E Plan, and most baselines and targets were populated. Progress data against indicators in the project's RRF was collected on a regular basis, although there was may be some slippage in following the frequency stated in the Plan and data sources was not always reliable. Any evaluations conducted, if relevant, met most decentralized evaluation standards. Lessons learned were captured but were used to take corrective actions. (all must be true)*
- ☐ 1: The project had M&E Plan, but costs were not clearly planned and budgeted for, or were unrealistic. Progress data was not regularly collected against the indicators in the project's RRF. Evaluations did not meet decentralized evaluation standards. Lessons learned were rarely captured and used. Select this option also if the project did not have an M&E plan.

## Evidence:

It's a GEF project and has a very strict M&E plan. PI R was submitted every year. Mid-term evaluation and Terminal evaluation have been completed.

## List of Uploaded Documents

#	File Name	Modified By	Modified On
1	SecondaryCopperMTRReport_Final_11746_309 ( <a href="https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/SecondaryCopperMTRReport_Final_11746_309.pdf">https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/SecondaryCopperMTRReport_Final_11746_309.pdf</a> )	jingjing.wang@undp.org	2/16/2022 5:22:00 AM
2	UNDP5383-GEF6966_TEReport_Final_11746_309 ( <a href="https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/UNDP5383-GEF6966_TEReport_Final_11746_309.pdf">https://intranet.undp.org/apps/ProjectQA/QAFormDocuments/UNDP5383-GEF6966_TEReport_Final_11746_309.pdf</a> )	jingjing.wang@undp.org	2/16/2022 5:22:00 AM

10. Was the project's governance mechanism (i.e., the project board or equivalent) function as intended?



- ☐ 3: The project's governance mechanism operated well, and was a model for other projects. It met in the agreed frequency stated in the project document and the minutes of the meetings were all on file. There was regular (at least annual) progress reporting to the project board or equivalent on results, risks and opportunities. It is clear that the project board explicitly reviewed and used evidence, including progress data, knowledge, lessons and evaluations, as the basis for informing management decisions (e.g., change in strategy, approach, work plan.) (all must be true to select this option)
- ☒ 2: *The project's governance mechanism met in the agreed frequency and minutes of the meeting are on file. A project progress report was submitted to the project board or equivalent at least once per year, covering results, risks and opportunities. (both must be true to select this option)*
- ☐ 1: The project's governance mechanism did not meet in the frequency stated in the project document over the past year and/or the project board or equivalent was not functioning as a decision-making body for the project as intended.

**Evidence:**

PSC meetings and meetings among project parties involved or stakeholders have been held frequently to discuss the project progress.

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No documents available.			

11. Were risks to the project adequately monitored and managed?

- ☐ 3: The project monitored risks every quarter and consulted with the key stakeholders, security advisors, to identify continuing and emerging risks to assess if the main assumptions remained valid. There is clear evidence that relevant management plans and mitigating measures were fully implemented to address each key project risk and were updated to reflect the latest risk assessment. (all must be true)
- ☒ 2: *The project monitored risks every year, as evidenced by an updated risk log. Some updates were made to management plans and mitigation measures.*
- ☐ 1: The risk log was not updated as required. There was may be some evidence that the project monitored risks that may affected the project's achievement of results, but there is no explicit evidence that management actions were taken to mitigate risks.

**Evidence:**

The project risks were updated and monitored every year on PPR and Atlas.

**List of Uploaded Documents**

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No documents available.			

**Efficient****Quality Rating:** Satisfactory

12. Adequate resources were mobilized to achieve intended results. If not, management decisions were taken to adjust expected results in the project's results framework.

- ☒ Yes  
☐ No

**Evidence:**

Yes, the actual co-financing of the project exceeded the planned USD 52,450,000 in the project documents, which mainly comes from the in-cash contribution of the private enterprises to the BAT/BEP demonstration. The actual project co-financing ratio (project co-financing/GEF financing) reached 6.95 and exceeded thus the planned ratio of 4.16 in the Project Document.

**List of Uploaded Documents**

#	File Name	Modified By	Modified On
No documents available.			

13. Were project inputs procured and delivered on time to efficiently contribute to results?

- ☐ 3: The project had a procurement plan and kept it updated. The project quarterly reviewed operational bottlenecks to procuring inputs in a timely manner and addressed them through appropriate management actions. (all must be true)
- ☒ 2: *The project had updated procurement plan. The project annually reviewed operational bottlenecks to procuring inputs in a timely manner and addressed them through appropriate management actions. (all must be true)*
- ☐ 1: The project did not have an updated procurement plan. The project team may or may not have reviewed operational bottlenecks to procuring inputs regularly, however management actions were not taken to address them.

**Evidence:**

The project had an annual review meeting to discuss the relevant procurement plan and updated the work plan to ensure that all of the targets can be achieved on time.

**List of Uploaded Documents**

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No documents available.			

14. Was there regular monitoring and recording of cost efficiencies, taking into account the expected quality of results?

- ☐ 3: There is evidence that the project regularly reviewed costs against relevant comparators (e.g., other projects or country offices) or industry benchmarks to ensure the project maximized results delivered with given resources. The project actively coordinated with other relevant ongoing projects and initiatives (UNDP or other) to ensure complementarity and sought efficiencies wherever possible (e.g. joint activities.) (both must be true)
- ☒ 2: *The project monitored its own costs and gave anecdotal examples of cost efficiencies (e.g., spending less to get the same result,) but there was no systematic analysis of costs and no link to the expected quality of results delivered. The project coordinated activities with other projects to achieve cost efficiency gains.*
- ☐ 1: There is little or no evidence that the project monitored its own costs and considered ways to save money beyond following standard procurement rules.

**Evidence:**

The project management team monitored its own costs, the financial reports including the CDR report, PIMS platform, and Atlas reports were regularly reviewed in order to ensure that all are up to date, reflect best practices.

**List of Uploaded Documents**

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No documents available.			

**Effective****Quality Rating: Highly Satisfactory**

15. Was the project on track and delivered its expected outputs?

- ☒ Yes  
☐ No

**Evidence:**

The project was initiated in June 2016. All activities defined in the Project Document, have been successfully finalized and the overall goals achieved. For more details please refer to the Terminal Evaluation report.

**List of Uploaded Documents**

#	File Name	Modified By	Modified On
No documents available.			

16. Were there regular reviews of the work plan to ensure that the project was on track to achieve the desired results, and to inform course corrections if needed?

- ☒ 3: *Quarterly progress data informed regular reviews of the project work plan to ensure that the activities implemented were most likely to achieve the desired results. There is evidence that data and lessons learned (including from evaluations /or After-Action Reviews) were used to inform course corrections, as needed. Any necessary budget revisions were made. (both must be true)*
- ☐ 2: There was at least one review of the work plan per year with a view to assessing if project activities were on track to achieving the desired development results (i.e., outputs.) There may or may not be evidence that data or lessons learned were used to inform the review(s). Any necessary budget revisions have been made.
- ☐ 1: While the project team may have reviewed the work plan at least once over the past year to ensure outputs were delivered on time, no link was made to the delivery of desired development results. Select this option also if no review of the work plan by management took place.

**Evidence:**

The project implementation was reviewed through the annual PIR, PPR, and annual work plan by relevant stakeholders. The project manager reported project progress and plan in the annual review meeting for further review/approval of the PSC members.

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No documents available.			

17. Were the targeted groups systematically identified and engaged, prioritizing the marginalized and excluded, to ensure results were achieved as expected?

- ☐ 3: The project targeted specific groups and/or geographic areas, identified by using credible data sources on their capacity needs, deprivation and/or exclusion from development opportunities relevant to the project's area of work. There is clear evidence that the targeted groups were reached as intended. The project engaged regularly with targeted groups over the past year to assess whether they benefited as expected and adjustments were made if necessary, to refine targeting. (all must be true)
- ☒ 2: *The project targeted specific groups and/or geographic areas, based on some evidence of their capacity needs, deprivation and/or exclusion from development opportunities relevant to the project's area of work. Some evidence is provided to confirm that project beneficiaries are members of the targeted groups. There was some engagement with beneficiaries in the past year to assess whether they were benefiting as expected. (all must be true)*
- ☐ 1: The project did not report on specific targeted groups. There is no evidence to confirm that project beneficiaries are populations have capacity needs or are deprived and/or excluded from development opportunities relevant to the project area of work. There is some engagement with beneficiaries to assess whether they benefited as expected, but it was limited or did not occurred in the past year.
- ☐ Not Applicable

**Evidence:**

The Project Document does not contain an analysis of the project stakeholders and their roles at the project inception. However, key stakeholders are listed under the Management Arrangement. Their roles in the project implementation are provided by key government agencies important for the project and their respective areas of responsibility.

**List of Uploaded Documents**

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No documents available.			

**Sustainability & National Ownership****Quality Rating: Satisfactory**

18. Were stakeholders and national partners fully engaged in the decision-making, implementation and monitoring of the project?

- ☐ 3: Only national systems (i.e., procurement, monitoring, evaluation, etc.) were used to fully implement and monitor the project. All relevant stakeholders and partners were fully and actively engaged in the process, playing a lead role in project decision-making, implementation and monitoring. (both must be true)
- ☒ 2: *National systems (i.e., procurement, monitoring, evaluation, etc.) were used to implement and monitor the project (such as country office support or project systems) were also used, if necessary. All relevant stakeholders and partners were actively engaged in the process, playing an active role in project decision-making, implementation and monitoring. (both must be true)*
- ☐ 1: There was relatively limited or no engagement with national stakeholders and partners in the decision-making, implementation and/or monitoring of the project.
- ☐ Not Applicable

**Evidence:**

The Project Document provides an outline of key stakeholders involved in secondary copper production sector management and development in China. At the national level, three governmental agencies play key roles in legislation, management, monitoring and communication of the secondary copper production sector.

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No documents available.			

19. Were there regular monitoring of changes in capacities and performance of institutions and systems relevant to the project, as needed, and were the implementation [arrangements](#)<sup>8</sup> adjusted according to changes in partner capacities?

- ☐ 3: Changes in capacities and performance of national institutions and systems were assessed/monitored using clear indicators, rigorous methods of data collection and credible data sources including relevant HACT assurance activities. Implementation arrangements were formally reviewed and adjusted, if needed, in agreement with partners according to changes in partner capacities. (all must be true)
- ☒ 2: *Aspects of changes in capacities and performance of relevant national institutions and systems were monitored by the project using indicators and reasonably credible data sources including relevant HACT assurance activities. Some adjustment was made to implementation arrangements if needed to reflect changes in partner capacities. (all must be true)*
- ☐ 1: Some aspects of changes in capacities and performance of relevant national institutions and systems may have been monitored by the project, however changes to implementation arrangements have not been considered. Also select this option if changes in capacities and performance of relevant national institutions and systems have not been monitored by the project.
- ☐ Not Applicable

**Evidence:**

Refer to the "III.RESULTS AND RESOURCES FRAMEWORK" of Prodoc.

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No documents available.			

20. Were the transition and phase-out arrangements were reviewed and adjusted according to progress (including financial commitment and capacity).

- ☐ 3: The project's governance mechanism regularly reviewed the project's sustainability plan, including arrangements for transition and phase-out, to ensure the project remained on track in meeting the requirements set out by the plan. The plan was implemented as planned by the end of the project, taking into account any adjustments made during implementation. (both must be true)
- ☒ 2: *There was a review of the project's sustainability plan, including arrangements for transition and phase-out, to ensure the project remained on track in meeting the requirements set out by the plan.*
- ☐ 1: The project may have had a sustainability plan but there was no review of this strategy after it was developed. Also select this option if the project did not have a sustainability strategy.

**Evidence:**

The project's governance mechanism reviewed the project on annual basis, to ensure the project was implemented on track in achieving the objective in line with the indicators.

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No documents available.			

**QA Summary/Final Project Board Comments**



The project was rated as highly satisfactory in terminal evaluation. After a five-year implementation period, the project completed its targets on time and met its overall objective.

- 1) The project commissioned more than 30 studies to assess existing policies. At the end of the project, 8 standards related to emission control were issued and two more were under development. On the basis of these standards, certificates were issued for more than 400 companies. These standards will play an important role in the sustainable development of the secondary metallurgical industry in China and other countries.
- 2) Two secondary copper miners have directly benefited from the project's support to improve their production processes by adopting BAT/BEP to reduce emissions of UPOPs. The two demonstration companies achieved a reduction of 46.20 g TEQ in total dioxin emissions, thus exceeding the pre-set target of 11.88 g TEQ.
- 3) Through the national promotion program, 20 companies (8 smelters and 10 dismantlers) were rewarded for applying BAT/BEP. A reduction of 386.52 g TEQ in flue gas and 21.17 g TEQ in residues was achieved, for a total reduction of 407.69 g TEQ.
- 4) The project organized more than 100 training events for 815 companies, 1,810 government officials, 5,521 skilled workers, and 8,250 managers. More than one million public participants took part in the awareness-raising activities. In addition, the project supported the production and distribution of more than 300 briefings on the unintentional reduction of POPs in secondary copper.