



水土保持計畫審核與監督管理及教育訓練

成果報告書

114
年度

農業部農村發展及水土保持署

ARDSWC- ARDSWC-114-203

水土保持計畫審核與監督管理及教育訓練 成果報告書

農業部農村發展及水土保持署
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水土保持法立法目的



水土保持義務人

公、私有土地之經營或使用者，依本法應實施水土保持措施者，為該土地之經營人、使用人或所有人，為本法所稱之水保義務人。

- 經營人：負擔決策義務 (水土保持法§4)
- 使用人：負擔行為義務
- 所有人：負擔管理義務



99.12.30 農經水保字第0991872668號函



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農業部農村發展及水土保持署 編印
中華民國114年12月

計畫編號：ARDSWC-114-203

水土保持計畫審核與監督管理及教育訓練
Soil and Water Conservation Plan
Censoring and Supervising Management with
Final Report
成果報告書

執行單位：社團法人臺灣省水土保持技師公會

執行期間：114年01月18日至114年12月10日

計畫主持人：李國正 理事長／水土保持技師

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農業部農村發展及水土保持署 編印

中華民國 114 年 12 月

（本報告書內容及建議純屬執行單位意見，僅供農村水保署施政參考）

水土保持計畫審核與監督管理及教育訓練

成果報告書

摘要

第一節 計畫緣起

農業部農村發展及水土保持署為瞭解農業部委託中央各目的事業主管機關，以及委任所屬各分署執行水土保持計畫審核及監督管理情形，本計畫邀請學者專家及相關機關組成專案小組進行實地訪查，同時對委託交通部及農村水保署自行辦理已完成水土保持計畫之永久水土保持設施，進行實地調查及檢查，以落實水土保持法相關規定及加強臨時防災措施，永續水土保持管理及強化山坡地安全防護工作。

此外，辦理山坡地開發水土保持管理法令、實務經驗交流座談會及全國水土保持服務團 20 周年活動，以提升水土保持相關從業人員之法規素養及增加實務經驗交流分享，精進水土保持處理與維護監督管理能力。以下就各工作項目說明階段性成果。

第二節 本年度已完成工作項目

在審查與檢查作業方面，計畫完成了 14 場次中央及地方水土保持計畫的訪查，並完成 15 案永久水土保持設施的實地檢查，檢視其運作與維護情形，發現多數設施運作良好，僅 1 案需改善。此外，針對水土保持計畫開工案件施工及完工檢查與相關會勘，已完成 171 案次，包含開工案件施工檢查、汛期抽查、重大違規案件處理等，並對小面積水土保持計畫開工案件進行了 86 案次的施工檢查。計畫也協助完成 66 件水土保持計畫的審核，累計外聘委員 166 人次，並完成 150 點位的衛星影像變

異點查證，判定結果分為「非違規」與「疑似違規」，同時彙整了相關判定標準與流程，供未來執行參考。

在座談會與教材製作方面，計畫成功舉辦了 3 場山坡地開發水土保持管理法令及實務經驗交流座談會，分別於北、中、南部舉行，內容涵蓋水土保持法規、施工減碳作法等主題，並進行問卷調查與綜合討論，所得意見已納入教材彙編中。教材彙編方面，透過彙整過往訪查、檢查及審核案件的常見缺失與相關法規，完成了《水土保持計畫審核監督教材》的修正版，並於期末簡報前完成教材手冊及簡報的製作。此外，計畫亦成功辦理全國水土保持服務團 20 周年活動，藉由活動交流與經驗分享，強化服務團的凝聚力，並提升成員的專業素養與技術能力。

在配合作業方面，計畫設置專業人員派駐農村水保署，協助處理審查與檢查作業的行政聯繫、紀錄整理及進度追蹤，確保計畫的順利執行。此外，執行團隊依合約規範，按時完成工作執行計畫、期中報告及期末報告的提送，並積極配合農村水保署召開相關會議及說明事項。

整體而言，本計畫在執行期間內已完成大部分的工作項目，並取得重要成果，特別是在訪查、檢查、座談會及教材彙編等方面展現出顯著成效。然而，部分工作項目尚未完全達成預定目標，執行團隊需進一步加速推進相關作業，以確保計畫在合約期限內全面完成。未來建議持續強化教育訓練與專業交流，優化檢查與審核流程，完善教材內容，並推動服務團相關活動，為水土保持工作奠定更扎實的基礎，進一步實現山坡地的永續管理與安全防護目標。

第三節 結論

- 一、執行力強：核心的固定場次工作皆已達標，將過程中產生的成果彙集整合，形成組織流程資產，並運用於座談會、開工說明會，同時在服務團 20 週年活動展現成果，顯示專案管理能力成熟。
- 二、整合性高：各種審查／檢查作業，透過意見彙集與樣態整合，萃取編成教材，配合開工說明會及服務團運作，期望提升品質，減少設計、施工、完工維護錯誤率，成功將「檢查發現的問題」轉化為「教育訓練的教材」，實現了經驗的有效回饋（Feedback Loop）。
- 三、防患未然：透過高密度的施工檢查與衛星監測，有效在災害發生前識別風險，體現了水土保持「預防重於治療」的精神。

第四節 建議

為使計畫效益最大化並順利結案，提出以下總體建議：

- 一、充分規劃工項工作數量：針對目前進度尚未百分之百達標的項次 4（施工檢查）、項次 5（小面積檢查）及項次 6（審查協助），建議在日後執行時，採「分區同步執行」或「增加單日檢查量」的方式，以確保合約履約率。
- 二、深化數據應用：本計畫歷年累積了大量的檢查數據與缺失樣態，建議未來可進一步分析這些數據，找出「最常違規的工項」或「最常出問題的區域」，做為農村水保署制定年度政策的參考依據。並透過篩除極端意見、分離缺失意見及正向建議，持續彙整更新至教材。
- 三、變異點複查已累積相當經驗，可凝聚相關作業流程，盡量做到毋枉毋縱。此外，針對座談會及水計開工說明會，建議結合水土保持服務團，緩解地方政府水保人員流動高造成的影響，且宣導方面除維持修訂政令與法規的說明，建議朝向經驗交流與對話。

- 四、強化在地連結：建議持續擴大與各地方公會及在地技師的合作，建立「在地檢查、即時回報」的網絡，不僅能降低成本，更能提升災害應變的機動性。

第五節 績效評核

本計畫透過量化指標與質化效益的雙重檢視，評估整體執行績效如下：

一、量化指標達成率

- (一)核心目標 100% 達成：所有具備固定期程與數量的關鍵工作項目（項次 1、2、3、8、9、10、11、12）皆已全數完成，顯示專案時程控管精準。
- (二)變動性任務執行良好：針對依需求指派的施工檢查（項次 4），在目標 200 案次中已完成 171 案次，達成率 85.5%，且包含汛期前的防災抽查，有效回應了季節性的防災需求。執行水土保持計畫開工說明會（項次 7），在目標 11 案次中已完成 9 場，達成率 81.8%，接近完成數量。
- (三)審查協助穩定推進：協助審查人次（項次 6）已達 166 人次（目標 220），達成率 75.4%，符合年度進度預期。執行農村水保署小面積水土保持計畫開工案件之施工檢查會勘（項次 5），在目標 150 案次中已完成 86 案次，達成率 57.3%。此二項仍在下年度執行時應強力溝通協調。

二、質化效益分析

- (一)風險預防成效顯著：透過衛星變異點查證與高密度的施工檢查，成功在災害發生前識別潛在風險，落實「預防重於治療」的政策目標。

(二)專業知能深化：藉由座談會與教材編撰，將實務檢查中發現的「負面缺失」轉化為「正面教材」，有效提升了從業人員的法規素養與技術能力。

(三)公私協力典範：全國水土保持服務團 20 周年活動的成功，不僅凝聚了向心力，更強化了政府與民間技師公會的合作夥伴關係，為未來的山坡地管理奠定堅實基礎。

Keyword：水土保持計畫、審核與監督管理、座談會、檢查、教材、
全國水土保持服務團 20 周年活動

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Section 1. Project Background

To understand the review and supervision of soil and water conservation projects entrusted by the Ministry of Agriculture to various central government agencies and its subordinate branches, this project invited scholars, experts, and relevant agencies to form a project team to conduct on-site inspections. Simultaneously, it conducted on-site investigations and inspections of permanent soil and water conservation facilities that had completed soil and water conservation projects entrusted to the Ministry of Transportation and Communications and the Rural Soil and Water Conservation Agency, in order to implement relevant provisions of the Soil and Water Conservation Act, strengthen temporary disaster prevention measures, ensure sustainable soil and water conservation management, and enhance slope safety protection.

In addition, the project included a seminar on the management of soil and water conservation in slope development, a practical experience exchange meeting, and the 20th anniversary celebration of the National Soil and Water Conservation Service Team, aiming to improve the legal literacy of soil and water conservation professionals, increase the exchange and sharing of practical experience, and enhance the supervision and management capabilities of soil and water conservation treatment and maintenance. The following describes the interim results of each work item.

Section 2. Completed Work Items This Year

This project, commissioned by the Rural Development and Soil and Water Conservation Administration of the Ministry of Agriculture, aimed to comprehensively strengthen the review and supervision of soil and water conservation projects, enhance the safety protection capabilities of hillside areas, and promote the legal literacy and practical skills of relevant practitioners. The project was implemented from January 18 to December 10, 2025, and was carried out by the Taiwan Provincial Soil and Water

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Conservation Technicians Association. It covered 12 work items, mainly divided into three groups: review/inspection work, seminars/teaching material production, and coordination work.

Regarding the review and inspection work, the project completed 14 site visits to central and local soil and water conservation projects and on-site inspections of 15 permanent soil and water conservation facilities, examining their operation and maintenance. Most facilities were found to be operating well, with only one requiring improvement. In addition, regarding the construction and completion inspections and related site visits for soil and water conservation projects, 171 cases have been completed, including construction inspections for commencement projects, spot checks during the flood season, and handling of major violations. 86 construction inspections were also conducted for small-area soil and water conservation projects. The project also assisted in the review of 66 soil and water conservation projects, with a total of 166 external committee members involved. Verification of anomalies in satellite imagery at 150 locations was completed, with results categorized as "non-violation" and "suspected violation." Relevant judgment standards and procedures have been compiled for future implementation reference.

Regarding seminars and teaching material production, the project successfully held three seminars on soil and water conservation management laws and practical experience in hillside development, held in northern, central, and southern Taiwan respectively. The topics covered soil and water conservation regulations and carbon reduction practices during construction. Questionnaire surveys and comprehensive discussions were conducted, and the results have been incorporated into the teaching material compilation. Regarding the compilation of teaching materials, a revised version of the "Water and Soil Conservation Project Review and Supervision Teaching Materials" was completed by summarizing common deficiencies and relevant regulations from past visits, inspections, and audits. The teaching material manual and presentation were also completed before the end-of-term briefing. Furthermore, the project successfully held the 20th anniversary event for the National Water and Soil Conservation Service Team. Through exchanges and experience sharing, the team's cohesion was strengthened, and members' professional skills and technical abilities were enhanced.

In terms of operational coordination, the project assigned professional personnel to the Rural Soil and Soil Conservation Administration to assist with administrative liaison, record-keeping, and progress tracking for review and inspection operations, ensuring the smooth implementation of the project. In addition, the implementation team, in accordance with contractual stipulations, submitted the work implementation plan, mid-term report, and final report on time, and actively cooperated with the Rural Soil and Soil Conservation Administration in holding relevant meetings and explanations.

Overall, the project has completed most of its work items and achieved significant results during its implementation period, particularly demonstrating remarkable effectiveness in visits, inspections, seminars, and teaching material compilation. However, some work items have not yet fully achieved their intended goals. The execution team needs to further accelerate related work to ensure the project is fully completed within the contract period. Future recommendations include continuously strengthening education and training and professional exchanges, optimizing inspection and review processes, improving training materials, and promoting related activities of the service team to lay a more solid foundation for soil and water conservation work and further achieve the goals of sustainable management and safety protection of hillside areas.

Section 3. Conclusion

- I.Strong Execution: Core fixed-session work has met its targets. The results generated during the process have been collected and integrated to form organizational process assets, which have been used in seminars and commencement briefings. The results were also showcased at the service team's 20th anniversary event, demonstrating mature project management capabilities.
- II.High Integration: Various review/inspection operations, through the collection of opinions and integration of methods, have been extracted and compiled into training materials. These materials, combined with commencement briefings and service team operations, aim to improve quality and reduce error rates in design, construction, and post-construction maintenance. The "problems discovered during inspections" have been

successfully transformed into "training materials," achieving effective feedback loop.

III.Prevention is Better than Cure: Through high-density construction inspections and satellite monitoring, risks are effectively identified before disasters occur, embodying the spirit of soil and water conservation that "prevention is better than cure."

Section 4. Recommendations

To maximize the project's effectiveness and ensure its successful completion, the following general recommendations are made:

- I.Thoroughly Plan the Number of Work Items: For items 4 (construction inspection), 5 (small-area inspection), and 6 (review assistance), which are not yet 100% completed, it is recommended to adopt a "regional simultaneous execution" or "increased daily inspection volume" approach to ensure contract fulfillment.
- II.Deepen Data Application: This project has accumulated a large amount of inspection data and missing information over the years. It is recommended to further analyze this data in the future to identify the "most frequently violated work items" or "most frequently problematic areas," serving as a reference for the Rural Soil and Water Conservation Administration in formulating annual policies. Furthermore, by filtering out extreme opinions, separating incomplete opinions, and retaining positive suggestions, the data should be continuously compiled and updated for inclusion in teaching materials.
- III.Experience Dissemination: Significant experience has been accumulated in the review of variation points, which can solidify relevant operational processes and ensure thoroughness. Furthermore, it is recommended to collaborate with soil and water conservation service teams at seminars and water conservancy project commencement briefings to mitigate the impact of high staff turnover in local government soil and water conservation efforts, and to promote [the project's goals].

Section 5. Performance Evaluation

This project assesses overall performance through a dual review of quantitative indicators and qualitative benefits, as follows:

I. Quantitative Indicator Achievement Rate

- (I) Core Objectives 100% Achieved: All key work items with fixed schedules and quantities (items 1, 2, 3, 8, 9, 10, 11, 12) have been completed, demonstrating precise project timeline control.
- (II) Good Execution of Variable Tasks: Regarding the construction inspections assigned on demand (item 4), 171 out of 200 target items have been completed, achieving an 85.5% success rate. This includes pre-flood season disaster prevention spot checks, effectively responding to seasonal disaster prevention needs. The commencement briefing for the Soil and Water Conservation Project (Item 7) has been completed, with 9 out of 11 sessions achieved, representing 81.8% of the target, nearing completion.
- (III) Review and Assistance Progresses Steadily: Assistance with reviews (Item 6) has reached 166 person-times (target 220), achieving 75.4% of the target, meeting annual progress expectations. Construction inspection and site visits for small-area soil and water conservation projects under the Rural Soil and Water Conservation Administration (Item 5) have been completed, with 86 out of 150 sessions achieved, representing 57.3% of the target. Strong communication and coordination are needed for these two items in the next fiscal year.

II. Qualitative Benefit Analysis

- (I) Significant Risk Prevention Effectiveness: Through satellite anomaly point verification and high-density construction inspections, potential risks were successfully identified before disasters occurred, implementing the policy objective of "prevention is better than cure."
- (II) Enhanced Professional Knowledge and Skills: Through seminars and textbook compilation, "negative deficiencies" identified during practical inspections were transformed into "positive learning materials," effectively improving the legal literacy and technical capabilities of practitioners.
- (III) Exemplary Public-Private Partnership: The success of the National Soil and Water Conservation Service Corps' 20th anniversary activities not

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only fostered cohesion but also strengthened the partnership between the government and private technical associations, laying a solid foundation for future hillside management.

Keyword : Soil and water conservation plan, review and supervision, seminar, inspection, textbook, National Soil and Water Conservation Service Corps' 20th anniversary activities

