



Investing in rural people

Executive Board

President's report on a proposed global grant to the Inter-American Development Bank for AgroWeb3 powered by LACChain: a Platform for the Digital Wallets of Rural Smallholder Farmers (AgroWeb3)

Project ID: 2000004940

Document: EB 2024/LOT/G.8

Date: 31 October 2024

Distribution: Public

Original: English

FOR: APPROVAL

Action: The Executive Board is invited to approve the recommendation contained in paragraph 21.

Technical questions:

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President's report on a proposed global grant to the Inter-American Development Bank for AgroWeb3 powered by LACChain: a Platform for the Digital Wallets of Rural Smallholder Farmers (AgroWeb3)

I. Background and compliance with the IFAD Regular Grants Policy

1. The grant for the project entitled AgroWeb3 powered by LACChain: a Platform for the Digital Wallets of Rural Smallholder Farmers (AgroWeb3) is a joint action designed and implemented in collaboration with the Inter-American Development Bank (IDB), through the technical leadership of the innovation lab of the Inter-American Development Bank (IDB lab). The grant, which is sponsored by IFAD's Innovation Unit (IU), is a strategic initiative aimed at addressing critical developmental challenges faced by smallholder farmers worldwide.
2. Smallholder farmers in rural areas face a number of challenges, such as high certification costs, limited digital infrastructure and inadequate financial services, which hinder their participation in global value chains. In response, IFAD will leverage technology developed by the IDB's LACChain initiative to establish AgroWeb3. The AgroWeb3 platform will utilize a single interoperable protocol and common standards for digital wallets, enabling smallholders to verify instantly and efficiently critical credentials, such as certification and credit histories, required by global market players. AgroWeb3 will empower smallholder farmers to access global markets and capitalize fully on the opportunities offered by Web3.
3. The proposed programme is in line with the goal and objectives of the IFAD Regular Grants Policy (2021).¹ The project focuses on strategic objective 1 (SO1) and priority area 3 of the IFAD Regular Grants Policy, and aims to enhance IFAD's impact on the ground by fostering partnerships for transformational change. The grant aligns closely with IFAD's overall goal of eradicating rural poverty and hunger by addressing key developmental challenges, such as limited access to global value chains and the digital divide. Pilots are further tailored to national context through alignment with the country strategic opportunity programmes (COSOPs).
4. The LACChain initiative has demonstrated significant effectiveness, which is crucial for the AgroWeb3 project. The LACChain initiative operates with 114 nodes managed by 85 entities, processes over 129 million blocks, and includes 67 partners across 18 countries. Additionally, it benefits over 9.3 million people across 23 countries and supports more than 1,500 community members and provides 120 solutions. This extensive network ensures a robust, compliant and efficient blockchain infrastructure, while providing zero transaction fees and high transparency.
5. As such, the intellectual property for AgroWeb3 originates from the LACChain initiative, which is owned by IDB. IDB was contracted directly as the grant recipient, given a lack of competitors with the required technology. As a result, AgroWeb3 will be co-owned by IFAD and IDB, and will thus serve as a global public good, enabling replication and scaling up across IFAD and partner portfolios following the pilot's successful implementation.
6. Therefore, by leveraging LACChain technology, AgroWeb3 offers a secure and efficient digital-wallet solution for rural smallholder farmers, thereby boosting financial inclusion, reducing costs, aligning with international standards, and improving the investment environment in smallholder agriculture.

¹ See EB 2021/132/R.3.

II. The proposed programme

7. The goal of the AgroWeb3 project is to empower rural smallholder producers by leveraging strategic partnerships and technological innovation. AgroWeb3 will enhance their economic opportunities, data ownership and participation in the digital economy. To address challenges, such as limited access to global value chains and the digital divide, the project will establish a universal digital-wallet system tailored to smallholders, thus fostering market development, reducing operational costs and promoting financial inclusion.
8. The target group for AgroWeb3 will include IFAD-financed interventions selected according to demand and the availability of an enabling policy and fiduciary environment. A preliminary list of countries was identified through desk reviews and early engagement with IFAD country offices and project management units. The final list for piloting, integrating and scaling up the technology will be confirmed following a scoping exercise and consultations with governments and sectoral stakeholders, including potential technology adopters, which will commence in the last quarter of 2024.
9. The programme will be implemented for a year and six months (18 months) and will encompass the following components:
 - (a) **Component 1: Stakeholder engagement and capacity-building.** This component engages stakeholders in the development of an AgroWeb3 ecosystem in four IFAD-financed portfolios. It aims to build a comprehensive understanding of each country's ecosystem, to adapt the AgroWeb3 solutions.
 - (b) **Component 2: Regional blockchain network deployment.** This component focuses on adapting the AgroWeb3 technology stack to IFAD's portfolio contexts, while ensuring that the testing environment for validating and improving the AgroWeb3 solutions is in compliance with national and international standards.
 - (c) **Component 3: Ecosystem development through capacity-building and knowledge management.** This component entails the development of a marketplace and technical support for deploying AgroWeb3 solutions to intermediaries and end-users, to promote the application market and encourage widespread adoption.
 - (d) **Component 4: Analysis, evaluation and contingency management.** This component entails the deployment of a real-time impact dashboard to produce actionable insights and data which can be used to guide decision-making and make strategy adjustments. It encompasses evaluation, audits and contingency planning.
 - (e) **Component 5: The design and operationalization of a monitoring and evaluation (M&E) system and grant administration.** This component involves building a robust monitoring system or tools for blockchain network activity.
10. The project will assess the pro-poor value of its technology, implement safeguards and ensure meaningful farmer participation and adoption. For instance, to address the challenge of limited internet access in rural areas, each smallholder farmer will receive a unique QR code linked to their digital identity containing key information such as land, production and financial data that can be stored and accessed offline. By scanning these QR codes, service providers will be able to update blockchain records, enabling smallholders to participate in the digital economy and benefit from financial inclusion, even in low-connectivity areas, thus enhancing their role in global markets.

III. Expected outcomes/outputs

11. The programme is expected to produce the following outcomes/outputs:
 - (a) Component 1:
 - (i) Outcome: The AgroWeb3 base technology is certified by the International Organization for Standardization (ISO) and serves as a global benchmark for digital solutions in agricultural value chains.
 - (ii) Outputs include: The development and certification of AgroWeb3 base technology, with four IFAD portfolios selected for piloting based on country demand and the existence of an enabling environment.
 - (b) Component 2:
 - (i) Outcome: LACChain technology adapted for use by IFAD, resulting in AgroWeb3, a digital public good with a single interoperable protocol and common standards for rural smallholder farmers' digital wallets.
 - (ii) Outputs include: A finalized ISO-compliant AgroWeb3 technology stack that is ready for use, with pilots launched through agricultural providers in four selected IFAD portfolios.
 - (c) Component 3:
 - (i) Outcome: Expansion of AgroWeb3 technology by increasing market reach, revenue and profitability to ensure sustainable growth and overall success.
 - (ii) Outputs include: Market-analysis reports, strategic business plans for expansion, capacity-building workshops and dissemination of knowledge products and publications.
 - (d) Component 4:
 - (i) Outcomes: The real-time impact dashboard enables the swift identification of bottlenecks and real-time adjustments, thus promoting agile project management. A sub-set of publicly-available data further enhances transparency and the visibility of solution uptake.
 - (ii) Outputs include: Real-time impact dashboard deployed, evaluation and audit conducted, AgroWeb3 grant management fee processed, and enhanced results metrics deployed, informed by the LACChain experience.
 - (e) Component 5:
 - (i) Outcome: Robust (M&E) system developed.
 - (ii) Outputs include: Design and operationalization of a real-time impact information dashboard for project management. M&E mechanisms established for routine progress analysis and for lessons learned reporting at project closure.
12. AgroWeb3 will be executed by the IDB with the IDB lab as primary implementing partner. IDB lab will establish the foundational framework, key implementation agreements and comprehensive oversight structures for transparent project management. To ensure sufficient technical capacity, IDB lab may collaborate with sub-contractors, such as the *Fundación Julio Ricaldoni*.
13. It is envisaged that a grant agreement will be signed between IFAD and IDB, which will act as the recipient of IFAD's funding, and as IFAD's sole counterpart bearing all responsibility for project implementation.

14. The IU will serve as IFAD's grant-sponsoring division, ensuring routine supervision, implementation support and oversight throughout the project. The IU will play a crucial role in setting strategic objectives, monitoring progress, and ensuring alignment with IFAD's policies and priorities. The IU will also facilitate close collaboration between IFAD and IDB, and work closely with IFAD country offices to ensure synergy with digital operations during country pilots.
15. As the grant recipient, IDB through the IDB lab will be accountable for high-quality technology development, testing, adoption promotion and analysis, in alignment with the project's goals and objectives.

IV. Implementation arrangements

16. IDB will oversee project implementation, liaising with both its financial services department and the IDB lab for technical advice and routine monitoring of the grant. For the purposes of reporting, which will take place semi-annually, the IDB lab will collect and transmit the necessary information to plan, implement, disburse and invoice the programme through IDB's financial services department. IDB shall submit regular technical reports on specific activities, outlining any issues related to fund usage. Financial reports shall comply with the relevant international standards and detail sources and uses of funds.
17. A detailed workplan aligned with IFAD's recommendations on implementation, including on dates of courses and sequence of activities, will be prepared by IDB following signature of the contract. The workplan will be shared with IFAD country offices to ensure alignment with country programmes and prioritized activities. IDB, as sole implementer, will control fund reallocation, while consulting the IDB lab to develop the project budget and yearly budget allocations. The work programme will include activity pricing, fund commitments, and contracting and budget revisions based on actual costs.
18. The proposed grant shall be implemented in compliance with IFAD financial management procedures and guidelines on procurement, financial reporting and fund flow requirements.
19. There are no deviations from the standard procedures for financial reporting and audits.

V. Indicative programme costs and financing

20. The proposed project costs are detailed in table 1 and table 2, with an estimated average cost per beneficiary of US\$2.45, subject to variation dependent on the number of end-users, project activities, implementation strategies and beneficiary demographics. Component 1 covers stakeholder engagement and capacity-building, with costs for consultancy, travel, management fees, and salaries. Component 2 involves configuring a regional blockchain network for AgroWeb3, with expenses on consultancy and services. Component 3 focuses on ecosystem development through capacity-building workshops and knowledge dissemination, covering goods and services. Component 4 includes customizing a real-time impact dashboard for decision-making, with costs for consultancies and inputs. Component 5 covers (M&E), focusing on real-time tracking of outcomes with expenses on salaries, goods and services.

Table 1
Costs by component and financier
 (United States dollars)

<i>Components</i>	<i>IFAD</i>	<i>IDB (in-kind)</i>	<i>Total</i>
1. Component 1: Stakeholder engagement and capacity-building	228 000	99 450	327 450
2. Component 2: Regional blockchain network deployment	585 480	840 000	1 425 480
3. Component 3: Ecosystem development through capacity-building and knowledge management	265 990	88 800	354 790
4. Component 4: Analysis, evaluation and contingency management	177 450	66 750	244 200
5. Component 5: The design and operationalization of a M&E system and grant administration	103 080		103 080
Total	1 360 000	1 095 000	2 455 000

Table 2
Costs by expenditure category and financier
 (United States dollars)

<i>Expenditure category</i>	<i>IFAD</i>	<i>IDB (in-kind)</i>	<i>Total</i>
1. Consultancy	677 400	-	677 400
2. Travel and allowances	294 000	-	294 000
3. Salaries and allowances	112 320	99 450	211 770
4. Goods, services and inputs	216 910	995 550	1 212 460
5. Overheads	59 370	-	59 370
Total	1 360 000	1 095 000	2 455 000

VI. Recommendation

21. I recommend that the Executive Board approve the proposed grant in terms of the following resolution:

RESOLVED: that the Fund, in order to finance, in part, the project entitled AgroWeb3 powered by LACChain: a Platform for the Digital Wallets of Rural Smallholder Farmers (AgroWeb3), shall provide a grant of one million three hundred and sixty thousand United States dollars (US\$1,360,000) to the Inter-American Development Bank for 18 months upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented to the Executive Board herein.

Alvaro Lario
 President

Results-based logical framework

Results hierarchy	Indicators			Means of verification			Assumptions
	Name	Baseline	End target	Source	Freq.	Response.	
Goal	Enhance IFAD's capacity to fulfil its mandate by leveraging innovation and strategic partnerships. The ultimate goal is to provide a transformative tool that enhances producers' economic opportunities, data ownership, and participation in the digital economy.						
Development objective	The overarching development objective of the AgroWeb3 project is to catalyze inclusive economic growth and resilience among smallholder producers in targeted IFAD-financed investment projects. By leveraging the transformative potential of Web3 technology, the project aims to empower farmers with access to transparent, decentralized financial tools, thereby overcoming barriers to participation in global value chains and reducing the digital divide. Through the establishment of common standards and protocols for digital wallets tailored to the needs of smallholder producers, AgroWeb3 seeks to enhance the productivity, market access, and data ownership rights of these farmers. Ultimately, the project aims to contribute to IFAD's broader mission of eradicating rural poverty and promoting sustainable agricultural development by leveraging innovation and strategic partnerships to enhance the impact and scalability of its programs.						
Outcomes Component 1	Enhanced Stakeholder Engagement and Collaboration	0	1	Status Report	Biannual	IDB Lab	
Outputs Component 1	• Comprehensive assessment of stakeholders' engagement status in four countries.	0	4	Report	Biannual	IDB Lab	<ul style="list-style-type: none"> Specialized consultant proficient in Web3, Blockchain, and AgroTech solutions is available. Stakeholders from both public and private sectors are willing to engage. Resources allocated for travel and allowances facilitate effective engagement. Collaboration with IFAD and non-IFAD stakeholders is feasible.
	• Non-binding legal instruments formalized among parties.	0	8	Legal instruments	Biannual	IDB Lab	
	• Operational mechanisms established for collaborative oversight and agreement monitoring.	0	1	Report	Biannual	IDB Lab	
	• Action plans developed for coordinated country engagement with public and private entities.	0	4	Action Plan	Biannual	IDB Lab	
Outcomes Component 2	Effective Project Coordination and Technical Support	0	1	Status Report	Biannual	IDB Lab	

Results hierarchy	Indicators			Means of verification			Assumptions
	Name	Baseline	End target	Source	Freq.	Response.	
Outputs Component 2	• General coordination and technical support provided for AgroWeb3 solutions.	0	1	Status Report	Biannual	IDB Lab	<ul style="list-style-type: none"> Specialized consultants or project managers are available for technical support. Adequate funding is allocated for travel and allowances. Collaboration with IFAD and non-IFAD stakeholders is established. Blockchain Network deployment and configuration activities are successfully completed.
	• Technical reports on solutions tested and deployed in the network.	0	3	Technical Report	Biannual	IDB Lab	
	• Technical assistance hours allocated per month.	0	1	Status Report	Biannual	IDB Lab	
	• Blockchain Network fully functional and compliant with international standards.	0	1	Technical Report	Annual	IDB Lab	
Outcomes Component 2	Establishment of Regional Blockchain Network	0	1	Status Report	Annual	IDB Lab	
Outputs Component 2	• Operational blockchain Network compliant with international standards.	0	1	Status Report	Annual	IDB Lab	<ul style="list-style-type: none"> Specialized technical experts are available for deployment and configuration. Adequate funding is available for travel, allowances, and network maintenance. Collaboration with IFAD and non-IFAD stakeholders is maintained. Technical frameworks and protocols provided by
	• Pre-built technology stack implemented and adapted.	0	1	Technical Report open-source information	Annual	IDB Lab	
	• Network maintenance and performance monitoring dashboards developed.	0	1		Annual	IDB Lab	
	• Single interoperable protocol and common standards for digital wallets established.	0	1	Publications of standards or technical specifications	Annual	IDB Lab	

Results hierarchy	Indicators			Means of verification			Assumptions
	Name	Baseline	End target	Source	Freq.	Responsible.	
							LACChain are accessible and suitable.
Outcomes Component 3	Expansion of market reach and revenue enhancement	0	1	Status Report	Annual	IDB Lab	
Outputs Component 3	<ul style="list-style-type: none"> Market opportunity analysis reports for selected portfolios/projects. Strategic business plans developed for market expansion. Capacity-building workshops and events conducted. Knowledge products and publications disseminated. 	0	2	Attendance records, recordings of sessions, material disclosing information on participation, publications, papers.	Biannual	IDB Lab	<ul style="list-style-type: none"> Business development and marketing experts are available for consultancy. Communication specialists support the development of communication products. Capacity-building workshops and events are conducted successfully. Open calls for proposals attract innovative solutions and proposals.
		0	2		Biannual	IDB Lab	
		0	4		Biannual	IDB Lab	
		0	4		Annual	IDB Lab	
Outcomes Component 4	Implementation of Real-time Impact Information Dashboard	0	1	Real-time results dashboard	Annual	IDB Lab	
Outputs Component 4	<ul style="list-style-type: none"> Real-time impact dashboard designed and deployed. Evaluation conducted to ensure effective management. 	0	1	Real-time results dashboard	Annual	IDB Lab	<ul style="list-style-type: none"> Consultant with a strong technical background in UI/UX design is available. Evaluation and audit firm is hired for effective management. Administrative support is provided for managing information dashboard and M&E activities. LACChain experience contributes to the
		0	1	Evaluation or Lessons Learned Report	Annual	IDB Lab	

Results hierarchy	Indicators			Means of verification			Assumptions
	Name	Baseline	End target	Source	Freq.	Responsible.	
							enhancement of monitoring tools.
Outcomes Component 5	Development of robust monitoring system or tools based on LACChain experience	0	1	Monitoring tools	Biannual	IDB Lab	
Outputs Component 5	• Robust M&E tools developed and operationalized.	0	1	Monitoring tools	Biannual	IDB Lab	<ul style="list-style-type: none"> • Development and operationalization of M&E tools are successful. • Dedicated administrative staff is available for managing M&E activities.
	• Management fee for grant to IDB processed.	0	1	Status Report	Annual	IDB Lab	
	• Administrative support (E.A.) provided for managing M&E activities.	0	1	Status Report	Annual	IDB Lab	