WHAT IS CLAIMED IS:

1. A computer-implemented method for management and transaction of greenhouse gases and environmental rights, the method comprising:

hosting, on a processing server, a portal for selling, purchasing, or third-party activity of contractual rights to develop greenhouse gases and environmental rights (GEARS) credits associated with one or more parcels of land, wherein the GEARS credits are separate from the ownership of the associated one or more parcels of land;

granting, by the processing server, one or more market participants access to data on the portal;

receiving, by the processing server, metrics on the one or more parcels of land with the contractual rights to develop GEARS credits;

storing, by the processing server, the metrics in a secure data storage;

verifying, on the processing server, that the one or more parcels of land associated with the contractual rights to develop GEARS credits comply with one or more conditions for development and potential entitlement to GEARS credits based on at least the received metrics;

in response to verifying that the at least one parcel of land of the associated one or more parcels of land is in compliance with the one or more conditions for development and potential entitlement to GEARS credits, generating, by the processing server, a digital token, the digital token representing the GEARS credits for the at least one parcel of land of the associated one or more parcels of land;

recording, by the processing server, the digital token in a secure data storage;

recording, by the processing server, the metrics of the one or more parcels of land associated with the contractual rights to develop GEARS credits and a verification result for each of the associated one or more parcels of land on the portal;

generating, by the processing server, a message, the message including the verification result for at least one of the associated one or more parcels of land; and

transmitting, by the processing server, the message to at least one of the one or more market participants.

2. The computer-implemented method according to claim 1, wherein the received metrics includes publicly disseminated information and one or more of permitting, contractual, registration, zoning, and ownership data of the associated one or more parcels of land with the contractual rights to develop greenhouse gases and environmental rights credits, the method~~,~~ further comprising:

documenting, on the processing server, the publicly disseminated information on the one or more parcels of land with the contractual rights to develop GEARS credits; and

documenting, on the processing server, one or more of permitting, contractual, registration, zoning, and ownership data of the one or more parcels of land with the contractual rights to develop GEARS credits.

3. The computer-implemented method according to claim 1, further comprising:

receiving, by the processing server, the metrics of the one or more parcels of land with the contractual rights to develop GEARS credits from an imaging system, the imaging system receiving images from one or more of a photo sensor, a satellite, an airplane, a drone, and a balloon.

4. The computer-implemented method according to claim 1, further comprising:

receiving, by the processing server, the metrics of the one or more parcels of land with the contractual rights to develop GEARS credits from a smart sensing technology, the metrics received from the smart sensing technology including one or more of area precipitation, area temperature, and changes in land usage or morphability.

5. The computer-implemented method according to claim 1, further comprising:

recording, on the blockchain associated with the processing server, the metrics of the one or more parcels of land with the contractual rights to develop GEARS credits.

6. The computer-implemented method according to claim 2, further comprising:

recording, on the blockchain associated with the processing server, the publicly disseminated information on the one or more parcels of land with the contractual rights to develop GEARS credits, and the one or more of permitting, contractual, registration, zoning, and ownership of the one or more parcels of land with the contractual rights to develop GEARS credits.

7. The computer-implemented method according to claim 1, further comprising:

providing, on the processing server, a status of the one or more parcels of land with the contractual rights to develop GEARS credits, the status including ownership of the one or more parcels of land with the contractual rights to develop GEARS credits, ownership of a contractual right to develop GEARS credits of the one or more parcels of land with the contractual rights to develop GEARS credits, and a status of the contractual right to develop the GEARS credits of the one or more parcels of land with the contractual rights to develop GEARS credits.

8. The computer-implemented method according to claim 1, further comprising:

registering, on the processing server, the plurality of market participants, the plurality of market participants participating in one or more of a sale, a purchase, or a third-party activity in a development of GEARS credits of the one or more parcels of land with the contractual rights to develop GEARS credits being hosted by the processing server.

9. The computer-implemented method according to claim ~~1~~8, wherein the granting of the access to the portal further comprises:

granting, by the processing server, the access to the portal by the one or more market participants via a digital identity system, the digital identify system including a

QR code on a sign in page of the portal in combination with a biometric validation of the QR with a smartphone.

10. A system for management and transaction of greenhouse gases and environmental rights, the system comprising:

a processing server configured to:

host a portal for the sale, the purchase, or the third-party activity of contractual rights to develop greenhouse gases and environmental rights (GEARS) associated with one or more parcels of land, wherein the GEARS credits are separate from the ownership of the associated one or more parcels of land;

grant one or more market participants access to data on the portal for the sale;

receive metrics on the one or more parcels of land with the contractual rights to develop GEARS credits;

verify that the one or more parcels of land with the contractual rights to develop GEARS credits comply with one or more conditions for development and potential entitlement to GEARS credits based on at least the received metrics;

in response to the verifying that at least one parcel of land of the one or more parcels of land is in compliance with the one or more conditions for development and potential entitlement to GEARS credits, generate a non-fungible token (NFT) digital token, the digital token representing the GEARS credits for the at least one parcel of land of the one or more parcels of land;

record store the digital token in a secure data storage;

record the metrics of the one or more parcels of land associated with the contractual rights to develop GEARS credits and a verification result for each of the one or more parcels of land on the portal;

generate a message, the message including the verification result for at least one of the one or more parcels of land; and

transmit the message to at least one of the one or more market participants.

11. The system according to claim 10, wherein the received metrics includes publicly disseminated information and one or more of permitting, contractual, registration, zoning, and ownership data of the one or more parcels of land with the contractual rights to develop greenhouse gases and environmental rights credits, wherein the processing server is further configured to:

document publicly disseminated information on the one or more parcels of land with the contractual rights to develop GEARS credits; and

document one or more of permitting, contractual, registration, zoning, and ownership of the one or more parcels of land with the contractual rights to develop GEARS credits.

12. The system according to claim 10, wherein the processing server is further configured to:

receive the metrics of the one or more parcels of land with the contractual rights to develop GEARS credits from an imaging system, the imaging system receiving images from one or more of a photo sensor, a satellite, an airplane, a drone, and a balloon.

13. The system according to claim 10, wherein the processing server is further configured to:

receive the metrics of the one or more parcels of land with the contractual rights to develop GEARS credits from a smart sensing technology, the metrics received from the smart sensing technology including one or more of area precipitation, area temperature, and changes in land usage or morphability.

14. The system according to claim 10, wherein the processing server is further configured to:

recording, on a blockchain associated with the processing server, the metrics of the one or more parcels of land with the contractual rights to develop GEARS credits.

15. The system according to claim 11, wherein the processing server is further configured to:

record on the blockchain associated with the processing server, the publicly disseminated information on the one or more parcels of land with the contractual rights to develop GEARS credits, and the one or more of permitting, contractual, registration, zoning, and ownership of the one or more parcels of land with the contractual rights to develop GEARS credits.

16. The system according to claim 10, wherein the processing server is further configured to:

provide a status of the one or more parcels of land with the contractual rights to develop GEARS credits, the status including ownership of the one or more parcels of land with the contractual rights to develop GEARS credits, ownership of a contractual right to develop GEARS credits of the one or more parcels of land with the contractual rights to develop GEARS credits, and a status of the contractual right to develop the GEARS credits of the one or more parcels of land with the contractual rights to develop GEARS credits.

17. The system according to claim 10, wherein the processing server is further configured to:

register the plurality of market participants, the plurality of market participants participating in one or more of a sale, a purchase, or a third-party activity in a development of GEARS credits of the one or more parcels of land with the contractual rights to develop GEARS credits being hosted by the processing server.

18. The system according to claim 17, wherein the processing server is further configured to grant the access to the portal by:

granting access to the portal by the one or more market participants via a digital identity system, the digital identify system including a QR code on a sign in page of the bilateral exchange portal in combination with a biometric validation of the QR with a smartphone.

19. A non-transitory computer readable medium storing computer readable program code that, when executed by a processor, causes the processor to provide an exchange for management and transaction of greenhouse gases and environmental rights, the program code comprising instructions for:

hosting, on a processing server, a portal for selling, purchasing, or third-party activity of contractual rights to develop greenhouse gases and environmental rights (GEARS) credits associated with one or more parcels of land, wherein the GEARS credits are separate from the ownership of the associated one or more parcels of land;

granting, by the processing server, one or more market participants access to data on the portal;

receiving, by the processing server, metrics on the one or more parcels of land with the contractual rights to develop GEARS credits;

storing, by the processing server, the metrics in a secure data storage;

verifying, on the processing server, that the one or more parcels of land associated with the contractual rights to develop GEARS credits comply with one or more conditions for development and potential entitlement to GEARS credits based on at least the received metrics;

in response to verifying that the at least one parcel of land of the associated one or more parcels of land is in compliance with the one or more conditions for development and potential entitlement to GEARS credits, generating, by the processing server, a digital token, the digital token representing the GEARS credits for the at least one parcel of land of the associated one or more parcels of land;

recording, by the processing server, the digital token in a secure data storage;

recording, by the processing server, the metrics of the one or more parcels of land associated with the contractual rights to develop GEARS credits and a verification result for each of the associated one or more parcels of land on the portal;

generating, by the processing server, a message, the message including the verification result for at least one of the associated one or more parcels of land; and

transmitting, by the processing server, the message to at least one of the one or more market participants.

20. The non-transitory computer readable medium according to claim 19, wherein the received metrics includes publicly disseminated information and one or more of permitting, contractual, registration, zoning, and ownership data of the associated one or more parcels of land with the contractual rights to develop greenhouse gases and environmental rights credits, the method further comprising:

documenting, on the processing server, the publicly disseminated information on the one or more parcels of land with the contractual rights to develop GEARS credits; and

documenting, on the processing server, one or more of permitting, contractual, registration, zoning, and ownership data of the one or more parcels of land with the contractual rights to develop GEARS credits; and

receiving the metrics of the one or more parcels of land with the contractual rights to develop GEARS credits from an imaging system, the imaging system receiving images from one or more of a photo sensor, a satellite, an airplane, a drone, and a balloon.