# Introduction

CEN International is the creative agency tasked with supporting GMS CASP with the creative items of the 2nd AMM Meeting. The knowledge sharing zone will contain posters to feature projects from the region. The posters will be displayed in the knowledge sharing zone of the exhibition at AMM2. The posters are used as presentation tools for presenters themselves to exchange knowledge as well as self-explanatory information boards for visitors to read.

# Content required

1. Project Title: *“Integrated Farming System and Livelihood Improvement through Adequate Green Water Management and Integrated with Participatory Guarantee System Project”*, in short called *“Green Water Management project (GWM)”*
2. Contact person: Dr. Kean Sophea, Phone 855 (0)17 437 129; email: kean.sophea@gmail.com
3. Catchy Caption/Slogan (For example: “Pechabun Farmer Community: Working Together to Expand Market Access”
4. Locations of project: (google map link)

I. Battambang province, Koas Krala district, Koas Krala commune:

[https://www.google.com.kh/maps/place/Koas+Krala/@12.7456315,103.1142423,11z/data=!4m8!1m2!2m1!1sBattambang+province,+Kos+Kralor+district,+Kos+Kralor+commune!3m4!1s0x31056be370d1f81b:0xae0711a2323bad6c!8m2!3d12.76158!4d103.260498](https://www.google.com.kh/maps/place/Koas%2BKrala/%4012.7456315%2C103.1142423%2C11z/data%3D%214m8%211m2%212m1%211sBattambang%2Bprovince%2C%2BKos%2BKralor%2Bdistrict%2C%2BKos%2BKralor%2Bcommune%213m4%211s0x31056be370d1f81b%3A0xae0711a2323bad6c%218m2%213d12.76158%214d103.260498)

II. Kampong Cham province, Prey Chhor district, Prey Chhor, Sragae & Trapeang Thom communes

[https://www.google.com.kh/maps/place/Prey+Chhor+District/@12.0583956,105.2475857,15z/data=!3m1!4b1!4m5!3m4!1s0x310c3ce2b837d735:0x56d527e1006410bf!8m2!3d12.0597727!4d105.2575148](https://www.google.com.kh/maps/place/Prey%2BChhor%2BDistrict/%4012.0583956%2C105.2475857%2C15z/data%3D%213m1%214b1%214m5%213m4%211s0x310c3ce2b837d735%3A0x56d527e1006410bf%218m2%213d12.0597727%214d105.2575148)

III. Svay Rieng province, Bavet district, Chrok Mates commune

IV. Tbaung Khmum province:

4.a. Tbaung Khmum province, Tbaung Khmum district, Tonle bet commune

[https://www.google.com.kh/maps/place/Tboung+Khmum/@11.9173231,105.596659,16z/data=!4m5!3m4!1s0x310c661aee1b57b1:0x2a06a100752d4633!8m2!3d11.9213853!4d105.6002024](https://www.google.com.kh/maps/place/Tboung%2BKhmum/%4011.9173231%2C105.596659%2C16z/data%3D%214m5%213m4%211s0x310c661aee1b57b1%3A0x2a06a100752d4633%218m2%213d11.9213853%214d105.6002024)

4.b. Tbaung Khmum province, O’ Raing Ov district, Tuol Sophy commune

[https://www.google.com.kh/maps/place/Ou+Reang+Ov+District/@11.7826587,105.4636001,13z/data=!4m5!3m4!1s0x310c71898fd432b5:0xc273037e0d7d25d4!8m2!3d11.7967745!4d105.5034785](https://www.google.com.kh/maps/place/Ou%2BReang%2BOv%2BDistrict/%4011.7826587%2C105.4636001%2C13z/data%3D%214m5%213m4%211s0x310c71898fd432b5%3A0xc273037e0d7d25d4%218m2%213d11.7967745%214d105.5034785)

1. Project Summary: (110 words)

Green Water Management project (GWM) is aimed at increasing agriculture productivity and producing safe food products through adoption of the GWM technology on a sustainable climate friendly agriculture (CFA) farm that leads to reduce poverty through income generation from the CFA farms. The GWM project is targeted in 4 provinces, including Battambang (BAT), Kampong Cham (KCH), Svay Rieng (SVR), and Tbaung Khmum (TBK) and is implemented by 4 technical departments of MAFF *[including Department of Agricultural Land Resource Management (DALRM), Department of Horticulture and Subsidiary Crops, Department of Agriculture Engineering/Provincial Department of Agriculture, Forestry and Fisheries (PDAFF) Svay Rieng and PDAFF Tbaung Khmum]*.

The lessons learnt assessment mission on all sub-projects in Cambodia, late 2016, has suggested that the GWM project should have additional activities related to safe food production and markets for cash income generation, i.e. the Participatory Guarantee System (PGS). The PGS project is aimed at ensuring the GWM farmer groups to pledge for participating in PGS groups for vegetable production according to the agreed standard and enabling market accessibility, in order to strengthen the supply chain and connection the market demands.

1. Any other text should be kept in short paragraphs (maximum 500 words in total)

*6.1. Implementation strategy and Key findings:*

- 25 demonstration farms (households) have been established to practice the GWM technology, on vegetable crops. These demo farmers (*received financial supports from the project)* rehabilitated 1-2 pond per family *(average size of pond 20mx10mx4m [in Battambang & Svay Rieng provinces] and 25mx15mx4m [in Kampong Cham & Tbaung Khmum provinces])*; some farmers have got biochar kilns and some got water pumping gasoline engines; farmers in Kaos Krala Battambang province use earth worms for soil amemdment, the average size of each farm demo varies in between 1,000m² to 2,000m² to 3,000 m² depending on the locations and average yield *(fruity vegetables, e.g. cucumber 15 ton/ha; leafy vegetables is approx. between 10 - 15 ton/ha)*; using drip irrigation; water sprinkler; mulching with plastic or rice straw or clothe; using compost with cow manure and biochar as basal; using bio-pesticide and some insect traps.

- The dry and wet seasons of 2016 and 2017 are irregular. Rain fall spreads almost the whole year in 2016. There was flooded by rain water during 2nd quarter of 2017. The average rainfall is 1,300 mm annually.

- Each demo farmer started to transfer knowledge and practice of own GWM demo farm to 2 neighbouring farmers, so called “pilot farmer”. However, the pilot farmers are opted to conduct all the activities as the demo farm or partially, due to less funding support.

- These GWM demo farmers have been formed into PGS groups (5 PGS groups). Each PGS group established crop calendar, own group standard (organic vegetable), PGS logo; printed as labelling on the veg. packages, gathering place for washing and packaging vegetables; vegetable stalls and partnership with existing vegetable vendors at the local markets for the PGS groups to sell their vegetables; each PGS group is having one or two agriculture contract farming with natural garden shops or supermarkets in Phnom Penh or other larger cities. The PGS farmers could get premium prices, between 10 – 15%, for their vegetables selling at the local markets as well as for through the contract farming.

*6.2. Impacts to beneficiaries*

- The GWM/PGS group members are very happy that they can get better/additional income for their families, beside the rice production. As some of them, used to plant one rice and one vegetable crops each year. Since, they participated in these GWM & PGS projects, they expect to have vegetables for selling all year round. These positive sign of having good income all year round, has shown also by the pilot farmers in the target areas.

*6.3. Potential for upscaling*

- In this connection, the knowledge, experience and methodology of the combination of the green water management and the PGS could be brought forward for scaling up to a larger project site and larger project beneficiaries.

*6.4. Policy recommendations*

- These below policy recommendations should be aligned with the GWM policy study that is being conducted by the Department of Agriculture Planning and Statistics.

- Similarly, the knowledge, experience and methodology of the combination of the green water management and the PGS could be brought forward as the policy recommendations with the agriculture sector policy. In particular, each farmer household should have at least one pond as a reservoir for vegetable irrigation during the dry season. These farmers may need to form themselves into PGS groups that are linked their products to the markets (whole sale, retails, and contract farming). The PGS vegetable products are chemical-free or organic, therefore, the policy recommendation should consider on promotion of the chemical-free/organic agriculture products from the PGS farmer groups as the safe food to public customers in Cambodia that could foster trust by the customers so that they are willing to accept the premium prices for these products from the PGS farmer groups.

- At national level, MAFF set up PGS National Coordination Body (PGS-NCB) to coordinate and monitor all the PGS groups establish in Cambodia within the Department of Horticulture and Subsidiary Crop of the General Directorate of Agriculture (DHSC-GDA/MAFF). PGS-NCB is comprised of the DHSC-GDA/MAFF personnel, NGOs and private sector companies and it is established under the umbrella of the Cambodia Agriculture Organic framework under a Prakas of MAFF (MAFF Circular). The National PGS logo has been designed and the national PGS guideline is being drafted by a PGS Expert. Under this this national framework, the PGS groups can be voluntary registered with the PGS-NCB and get certified and used the national logo. This section has to be reflected in the agriculture policy recommendation.

1. At least 5 images, optimum are 10 images (each image with a description). Images should be high-resolution JPG

- *The photos will be sent in separate emails.*

1. Quotes and images of partners (optional) (Example: Quotes and Testimonies from Farmers and other stakeholders)

- Testimonies from Farmers and other stakeholders:

*“Water and land resources plus resilience can produce agricultural products and generate income thus improving living standard.”*

1. Graphs and statistics and/or fast facts (optional) – *N/A*