

Design idea 1	Strong evidence	Some evidence	Less evidence	Record any evidence
<b>Access and Equity</b>				
AE 1: Design have ready access to basic services for the community	3			The solar-powered water purification system provides ready access to clean drinking water for the community of Tanh Linh Town, addressing their severe water shortage.
AE 2: Design has a centralized system, easy to use for a household		2		While the system is centralized, serving the community as a whole, there's no specific mention of individual household use. It may require community members to collect water from a central location.
AE 3: Services were provided for different age groups with special needs			1	The report doesn't specifically mention services for different age groups or those with special needs.
<b>Health and Safety</b>				
HS 1: Services are lifelines for the remote communities, often playing an integral role in emergency situations	3			The system plays a vital role in providing clean drinking water, which is essential for the community's health and can be crucial in emergency situations.
HS 2: Adequate safety/safety guidelines provided within the design		2		The report mentions multiple filtration stages, including UV sterilization, which suggests safety measures are in place. However, specific safety guidelines aren't detailed.
HS 3: Design considers and satisfies Australian standards of health and safety			1	There's no mention of Australian health and safety standards in the report.
<b>Environmental health</b>				
EH 1 : Materials/ Chemicals are environmentally suitable for the remote location	3			The system uses solar energy, a renewable resource, and doesn't rely on harmful chemicals for purification
EH 2: Design prototype or model maintenance and upgrade has less impact on the environment	3			The use of solar energy and the reduction of reliance on non-renewable energy sources suggest that maintenance and upgrades would have minimal environmental impact.

<b>Appropriateness</b>				
AP 1: A robust design suitable for local remote community location	3			The design is specifically tailored for Tanh Linh Town, considering their geographical location, climate, and water scarcity issues.
AP 2: An appropriate infrastructure (design prototype / model) with efficient impact in solving a community need	3			The system directly addresses the community's need for clean drinking water, providing an efficient solution to their water crisis.
<b>Affordability</b>				
AF 1 : A detailed response to the problem is identified (realistic solution)	3			The report provides a detailed description of the problem and offers a realistic solution using locally available resources and renewable energy.
AF 2: Improves well-being at an affordable cost (such as installation, and maintenance)		2		While the report mentions lower ongoing costs due to free solar energy, it also notes high initial setup costs, which might be a barrier for some communities.
AF 3: Enable people to apply available resources and skills to use the design		2		The system uses locally available resources, but it's not clear how much the community can be involved in its operation and maintenance.
<b>Sustainable livelihoods</b>				
SL 1: Design is a long-term sustainable solution for the future.	3			The solar-powered system is described as a long-term, sustainable solution for providing clean water.
SL2 : Longer-lasting and better-functioning products are used	3			The report mentions high-quality components like excellent photovoltaic panels and sturdy storage tanks, suggesting longer-lasting and better-functioning products.
SL 3: Design products have the capability for reuse and recycling			1	While the system promotes sustainability, there's no specific mention of reuse or recycling capabilities for the components.

Team ID: W3 Group: 3 Student Name : Thuan Khang and ID:104171078

<b>Design idea 2</b>	Strong evidence	Some evidence	Less evidence	Record any evidence
<b>Access and Equity</b>				

AE 1: Design have ready access to basic services for the community	3			The Rainwater Harvesting and Storage System provides ready access to basic services by ensuring a reliable and safe water supply.
AE 2: Design has a centralised system, easy to use for a household			1	Design may not be centralised in remote condition, more suitable for industrial
AE 3: Services were provided for different age groups with special needs			1	There was not enough evidence to explain whether the design is for all age groups
<b>Health and Safety</b>				
HS 1: Services are lifelines for the remote communities, often playing an integral role in emergency situations	3			The system can ensure to solve the integral role in emergency situations
HS 2: Adequate safety/safety guidelines provided within the design	3			The safety measures and guidelines ensure that the Rainwater Harvesting and Storage System operates safely, providing clean and reliable water for the community while minimizing health risks and ensuring longevity of the system
HS 3: Design considers and satisfies Australian standards of health and safety			1	There was not enough evidence to explain whether the design is satisfies Australian standards of health and safety
<b>Environmental health</b>				
EH 1 : Materials/ Chemicals are environmentally suitable for the remote location			1	There was not enough evidence to explain whether materials/ Chemicals are environmentally suitable for the remote location
EH 2: Design prototype or model maintenance and upgrade has less impact on the environment			1	There was not enough evidence to explain whether design prototype or model maintenance and upgrade has less impact on the environment
<b>Appropriateness</b>				
AP 1: A robust design suitable for local remote community location		2		The system may not suitable for local remote community location
AP 2: An appropriate infrastructure (design prototype / model) with efficient impact in solving a			1	there may not enough to explain whether this design is an appropriate infrastructure (design

community need				prototype / model) with efficient impact in solving a community need
<b>Affordability</b>				
AF 1 : A detailed response to the problem is identified (realistic solution)		3		there may be have some responses but not detail
AF 2: Improves well-being at an affordable cost (such as installation, and maintenance)			1	there isn't explicit evidence directly addressing the affordability of installation and maintenance costs in the paragraphs.
AF 3: Enable people to apply available resources and skills to use the design			1	there may not have enough explanation for this. it's not possible to confirm that the design effectively enables community members to apply available resources and skills in using the system.
<b>Sustainable livelihoods</b>				
SL 1: Design is a long-term sustainable solution for the future.			1	there may not have enough explanation for this
SL2 : Longer-lasting and better-functioning products are used			1	there may not have enough explanation for this
SL 3: Design products have the capability for reuse and recycling			1	there may not have enough explanation for this

Team ID: W3 Group: 3 Student Name : Le Tien Dung and ID:104977412

<b>Design idea 3</b>	Strong evidence	Some evidence	Less evidence	Record any evidence
<b>Access and Equity</b>				
AE 1: Design have ready access to basic services for the community	3			The community greywater recycling system provides ready access to clean drinking water for the community of Tanh Linh Town, addressing their severe water shortage.
AE 2: Design has a centralised system, easy to use for a household		2		Although the system mainly focuses on serving the community, it can also be easily installed within households.
AE 3: Services were provided for different age groups with special needs			1	The report does not specifically mention services for different age groups or those with special needs.

<b>Health and Safety</b>				
HS 1: Services are lifelines for the remote communities, often playing an integral role in emergency situations		2		This system played as a roll just in saving the current clear/treated water resource and providing irrigation water. For their basic needs, the inhabitants would still require a primary source of clean water.
HS 2: Adequate safety/safety guidelines provided within the design	3			The report mentions numerous filters serving various functions. Furthermore, the systems' downsides were noted in the last paragraph, which states that the greywater is not fully clear and the users would need to be educated to use it.
HS 3: Design considers and satisfies Australian standards of health and safety			1	There is no mention of Australian health and safety standards in the report.
<b>Environmental health</b>				
EH 1 : Materials/ Chemicals are environmentally suitable for the remote location		2		The systems would still need to install the pre-manufactured filters, so some parts need to be transferred to the installation location.
EH 2: Design prototype or model maintenance and upgrade has less impact on the environment	3			These systems offer non-portable water resources, which lessens the demand for clean water resources. Even so, if excess water leaks into the environment, no harm is done.
<b>Appropriateness</b>				
AP 1: A robust design suitable for local remote community location	3			The design is extremely focused on the Tanh Linh's residents and takes into account the local climate, geography, and scarcity of water during the dry season.
AP 2: An appropriate infrastructure (design prototype / model) with efficient impact in solving a community need	3			The system offers an alternative irrigation water resource with a direct focus on agricultural output, taking into account the primary occupation of the people residing in Tanh Linh town.
<b>Affordability</b>				
AF 1 : A detailed response to the problem is identified (realistic	3			The report provides gives a thorough explanation of the issue

solution)				and presents a clever and affordable solution to end water scarcity.
AF 2: Improves well-being at an affordable cost (such as installation, and maintenance)		2		The system's overall cost may go up because it requires a lot of water pipelines and several filters, in addition to the yearly installation and maintenance of valves.
AF 3: Enable people to apply available resources and skills to use the design		2		Certain system components, including filters and pipes, must be manufactured in advance. Still, the installation would be simple enough for the inhabitants to do on their own.
<b>Sustainable livelihoods</b>				
SL 1: Design is a long-term sustainable solution for the future.	3			The community greywater recycling system is described as a long-term sustainable solution for providing non-potable water.
SL2 : Longer-lasting and better-functioning products are used	3			
SL 3: Design products have the capability for reuse and recycling			1	Although this approach encourages sustainable solutions, only non-fruit-bearing plants should be watered with treated greywater.

Team ID: W3 Group: 3 Student Name :Nguyen Thanh Hung and ID: 104176332

<b>Design idea 4</b>	Strong evidence	Some evidence	Less evidence	Record any evidence
<b>Access and Equity</b>				
AE 1: Design have ready access to basic services for the community	3			Residents' sense of water security is increased by the community's steady water supply which is made possible by the water management and storage system.
AE 2: Design has a centralized system, easy to use for a household	3			A sophisticated water filtration system ensures clean and safe water and the centralized system is simple to operate.
AE 3: Services were provided for different age groups with special			1	The report doesn't specifically mention services for different

needs				age groups or those with special needs.
<b>Health and Safety</b>				
HS 1: Services are lifelines for the remote communities, often playing an integral role in emergency situations	3			It is especially important during emergencies and droughts that the system offers a steady and secure water supply.
HS 2: Adequate safety/safety guidelines provided within the design		2		To guarantee clean water the multi-layer water filtration system gets rid of dangerous chemicals microbes and organic materials.
HS 3: Design considers and satisfies Australian standards of health and safety			1	There's no mention of Australian health and safety standards in the report.
<b>Environmental health</b>				
EH 1 : Materials/ Chemicals are environmentally suitable for the remote location	3			The sustainable groundwater management system contributes to preserving ecological balance by reducing its negative effects on the environment.
EH 2: Design prototype or model maintenance and upgrade has less impact on the environment		2		Reliance on delicate water sources is lessened and sustainable water resource management is encouraged by the water filtration and level management system.
<b>Appropriateness</b>				
AP 1: A robust design suitable for local remote community location		2		The system is made to work well in the Tánh Linh locality where frequent dry-season water shortages occur.
AP 2: An appropriate infrastructure (design prototype / model) with efficient impact in solving a community need	3			By recharging groundwater supplies the system tackles the problem of water scarcity and safeguards the environment.
<b>Affordability</b>				
AF 1 : A detailed response to the problem is identified (realistic		2		The system offers a workable

solution)				solution to the problems of water scarcity and excessive groundwater use.
AF 2: Improves well-being at an affordable cost (such as installation, and maintenance)			1	The community non-governmental organizations and the government must all support the system which has a large upfront cost.
AF 3: Enable people to apply available resources and skills to use the design		2		The efficacy and sustainability of the system are enhanced by local knowledge and community involvement.
<b>Sustainable livelihoods</b>				
SL 1: Design is a long-term sustainable solution for the future.		2		Water resources are preserved and enhanced for the future with the aid of a long-term sustainable groundwater management system.
SL2 : Longer-lasting and better-functioning products are used		2		Long-term clean water availability is guaranteed overexploitation is avoided and stable water levels are maintained with the systems assistance.
SL 3: Design products have the capability for reuse and recycling			1	The report doesn't specifically mention the capability for reuse and recycling with special needs.

<b>Design idea 1</b>				
<b>Access and Equity</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AE 1	3		2	2
AE 2	2		2	3
AE 3	1		1	1
<b>Health and Safety</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>



HS 1	3		3	2
HS 2	2		2	2
HS 3	1		1	1
<b>Environmental health</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
EH 1	3		3	3
EH 2	3		3	3
<b>Appropriateness</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AP 1	3		2	3
AP 2	3		2	2
<b>Affordability</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AF 1	3		2	2
AF 2	2		2	3
<b>Sustainable livelihoods</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
SL 1	3		2	3
SL 2	1		2	1

<b>Design idea 2</b>				
<b>Access and Equity</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>

AE 1		3	3	3
AE 2		1	2	2
AE 3		1	1	1
<b>Health and Safety</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
HS 1		3	2	2
HS 2		3	3	3
HS 3		1	1	1
<b>Environmental health</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
EH 1		1	2	1
EH 2		1	3	1
<b>Appropriateness</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AP 1		2	3	3
AP 2		1	3	1
<b>Affordability</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AF 1		1	3	1
AF 2		1	2	1
<b>Sustainable livelihoods</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
SL 1		1	3	1

SL 2		1	3	1
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<b>Design idea 3</b>				
<b>Access and Equity</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AE 1			3	2
AE 2			2	3
AE 3			1	1
<b>Health and Safety</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
HS 1			2	3
HS 2			3	2
HS 3			1	1
<b>Environmental health</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
EH 1			2	3
EH 2			3	2
<b>Appropriateness</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AP 1			3	3
AP 2			3	3
<b>Affordability</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AF 1			3	3

AF 2			3	3
<b>Sustainable livelihoods</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
SL 1			3	3
SL 2			3	3

<b>Design idea 4</b>				
<b>Access and Equity</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AE 1			2	3
AE 2			3	3
AE 3			1	1
<b>Health and Safety</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
HS 1			2	3
HS 2			2	2
HS 3			1	1
<b>Environmental health</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
EH 1			3	3
EH 2			3	2
<b>Appropriateness</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>

AP 1			2	2
AP 2			2	3
<b>Affordability</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
AF 1			2	2
AF 2			1	1
<b>Sustainable livelihoods</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
SL 1			3	2
SL 2			2	2

Design Justification (average score)

<b>Access and Equity</b>	<b>Design 1</b>	<b>Design 2</b>	<b>Design 3</b>	<b>Design 4</b>
AE 1	3	3	3	3
AE 2	2	1	2	3
AE 3	1	1	1	1
<b>Health and Safety</b>				
HS 1	3	3	2	3
HS 2	2	3	3	2
HS 3	1	1	1	1
<b>Environmental Health</b>				

EH 1	3	1	2	3
EH 2	3	1	3	2
<b>Appropriateness</b>				
AP 1	3	2	3	2
AP 2	3	1	3	3
<b>Affordability</b>				
AF 1	3	1	3	2
AF 2	2	1	3	1
<b>Sustainable livelihoods</b>				
SL 1	3	1	3	2
SL 2	1	1	3	2
<b>Average Score</b>	2.36	1.5	2.5	2.14

So the Design Idea 1 and Design Idea 3 have the most highest score with 2.36 & 2.5